

COMPETITIVE FORCES ON THE UKRAINIAN PHARMACEUTICAL MARKET: EVALUATION ASPECTS

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Introduction

Nowadays Ukrainian pharmaceutical market is characterized as import-dependent due to the dramatically high share of imports which comprises near 68% of value of the national consumption of pharmaceutical products. However, 70% of overall volume is sold by national producers. Such discrepancies in terms of trade have led to increasing number of loss making companies mainly among small and medium-sized firms (36% and 29% of overall number of firms, respectively). Moreover, according to the data of SSSU (2016), the number of firms operating in the market has shortened by 25% during 2010–2015. Additional problems for the national producers are: 1) oligopolistic structure of distribution segment of the national pharmaceutical market (i.e. today 6 leading distributors sell 80% of all pharmaceutical products); 2) limited exports opportunities, which cover primarily CIS countries.

The objective of this paper is to provide a model for evaluating the level of competitive forces for big and medium-sized profitable pharmaceutical companies in their interaction with the main actors of competitive environment, namely consumers, suppliers, and competitors.

Literature Review

Discovering a link between firms' competitive forces and financial indicators would help to coordinate strategies of various functional departments within an organization. Studies of Voulgaris and Lemonakis (2014) have discovered positive relationship between firms' competitiveness and profitability indicators, particularly firms' gain from the efficient utilization of their fixed assets.

Altuntaş et al. (2014) have developed conceptual framework of interrelations between industry forces (threat of new entrants, bargaining power of buyers and suppliers, threat of substitutes and intensity of rivalry), competition strategies (cost leadership and differentiation strategies), functional strategies (brand image, human resource, information technology strategies) and organizational performance (operational and financial outcomes). Cost leadership competition strategy requires loyalty from suppliers whereas differentiation strategy succeeds in case of a profound brand management efforts.

Bargaining power arises in various areas of social and economic relations, particularly in labor, diplomatic, and commercial negotiations as well. Hays (1952) puts forward an idea that bargaining power is the ratio of cost of disagreeing to the costs of agreeing with counterpart. In his interpretation, the higher the ratio the lower bargaining power is. High bargaining power of buyers and suppliers is also tightly connected with phenomenon of “accounting conservatism”, so often claimed by shareholders as a result of overestimation of losses and possible risks. This problem arises when firms set up long-term cooperation thus financial stability is crucial for both buyer and supplier (Zhao et al., 2015). Crook and Combs (2007) suggest that

companies involved in one supply chain use their bargaining power differently. Though exercising strong position in negotiations is natural, sometimes companies with strong bargaining power avoid using this advantage in situations when it may lead to disagreement within the members of supply chain. Drawn on evidence from Fabbri and Klapper (2016) on the relationship between bargaining power and trade credit supply it is clear that firms having weak bargaining power are more likely to sell goods in credit, exploiting credit as a powerful tool of competitive advantage on the market. According to Takata (2016), high competitive rivalry firms are focused on developing their marketing capabilities as they have strong effect on performance indicators. He claims that channel management for highly competitive markets has higher priority for companies' performance comparing to new product development and pricing.

The analysis of corporate financial statements is widely used by practitioners and scholars for explaining various business-processes (e.g. Dinu and Dobrea, 2013; Florin, 2013; Vegesna and Dash, 2014). In their paper Deari and Dinca (2015) revealed the relationship of company's size in terms of current assets, inventory, receivables, and net profit. They postulated positive correlation between firm's assets and the volume of generated net profit together with higher profitability ratio. Osmani and Deari (2016) disclosed negative effect of recession on company's profitability. However, during the recession liquidity indicators increased substantially. Recent research has also shown a positive impact of leverage on performance indicators of small-sized firms and negative for big ones (Vithessonthi and Tongurai, 2015).

Our research aims at giving an understanding of correlation between firms' financial indicators and elements of competitive forces in pharmaceutical industry. Thus, some findings allow financial and marketing managers to discuss problems of budgeting, financial performance and competitiveness on a uniform platform.

Model Specification and Data Description

Following the approach of quantitative evaluation of descriptive indicators of Porter's Five Forces suggested by Wua et al. (2012) we developed the model for measuring the power of suppliers, customers and competitors (Table 1).

Our methodology includes several consecutive steps:

- 1) calculation of indicators for measuring influence of competitive forces on companies' performance (Table 1);
- 2) computation of industry-average parameters based on 10 leading national pharmaceutical companies in Ukraine;
- 3) qualimetric measurement of the level of influence of certain competitive forces on firm's market position according to the following criteria described in Table 2;
- 4) visualization and following explanation of the relationship between companies' profits and elements of competitive forces;
- 5) ranking companies according to the number of insufficient parameters and localizing the most problematic/challenging firms from the viewpoint of their competitive strategies.

The more insufficient parameters companies have, the more vulnerable they are to the forces of competitive environment, particularly, power of customers and suppliers, threat of new entrants and severity of competition.

Table 1. Indicators for Benchmarking Analysis of Pharmaceutical Companies in Competitive Environment

Element of competitive forces Porter (1979)	Indicator & Formula using balance sheet data Brigham and Houston (2011)	Interpretation of marginal indicators (author's interpretation)
Bargaining Power of Customers	$\text{Accounts Receivable Ratio} = \frac{\text{Accounts receivable}}{\text{Current assets}}$	Increasing share of receivables in current assets stipulates high bargaining power of customers as they can freely break terms of payment without being afraid of sanctions from the supplier.
	$\text{Gross Profit Margin} = \frac{\text{Gross profit}}{\text{Net Sales (Revenue)}}$	Allows detecting positive/negative trend in company's profit, applicable for industry benchmarking, positive ratios push stock prices up; gives retrospective view back to 3-5 years.
	$\text{Sales Costs Efficiency} = \frac{\text{Sales costs}}{\text{Net Sales (Revenue)}}$	Increase of sale costs ratio shows high bargaining power of customers as suppliers are forced to invest in advertising and promotional activities to gain and retain customers.
	$\text{Accounts Receivable Turnover} = \frac{\text{Net Sales (Revenue)}}{\text{Average Accounts Receivable}}$	High bargaining power of customers arise in case of low turnover of receivables, which means drop in sales or/increase in account receivables.
Bargaining Power of Suppliers	$\text{Accounts Payable Ratio} = \frac{\text{Accounts payable}}{\text{Current assets}}$	High ratio of payables in current assets means low bargaining power of suppliers who are not willing to be overstocked by goods. Apart from that selling at open account creates a stimulus for retaining customers as well.
	$\text{Financial Dependence Ratio} = \frac{\text{Balance}}{\text{Equity Capital}}$	This indicator estimates company's dependence from borrowed capital (i.e. banks and other external suppliers of debt capital). The higher the ratio, the bigger the power of suppliers.
	$\text{Accounts Payable Turnover} = \frac{\text{Total Purchases}}{\text{Accounts payable}}$	Represents a short-term liquidity and ability to pay its current liabilities. Purchases calculated as cost of sales + ending inventory – starting inventory. Low turnover ratio can represent either high bargaining power or inability to pay on time its debts.
Threat of New Entrants	$\text{Return On Assets} = \frac{\text{Net Profit}}{\text{Average Total Assets}}$	Ratio describes profitability of assets. Indicator can fluctuate between 1.5-5%; the more fixed assets company owns the less ROA there will be; applicable for benchmarking of companies with similar business and production processes.
	$\text{Growth of Revenue} = \left(\frac{\text{Present revenue} - \text{Past revenue}}{\text{Past revenue}} \right) \cdot 100$	Growth indicates that the appearance of new entrants is low. High benchmarking indicators over rivals dismantle potential entrant.
	$\text{Growth of Net Profit} = \left(\frac{\text{Present profit} - \text{Past profit}}{\text{Past profit}} \right) \cdot 100$	Growth indicates that the appearance of new entrants is low. Higher figures as well eradicate a threat of new entrants.
Competition among Existing Competitors	$\text{Return On Equity} = \frac{\text{Net Profit}}{\text{Average Shareholder's Equity}}$	ROE illustrates equity capital profitability; ratios can be comparable within different industries and markets; 15-20% is deemed to be an attractive figure for investors provided well-balanced equity/debt proportion.
	$\text{Cash Ratio} = \frac{\text{Current assets} - \text{Inventory}}{\text{Current liabilities}}$	Indicator illustrates possibility to pay current liabilities using cash, its equivalents and accounts receivable. Sufficient ratio estimated at 0.6 whereas too low and high numbers point out poor financial management and underestimation of shareholder's capital.
	$\text{Working Capital Ratio} = \frac{\text{Current assets}}{\text{Current liabilities}}$	For high liquidity, it is essential that current assets should overlap current liabilities. High liquidity proves smooth financial and account management. In terms of competitiveness it represents skillfulness in collecting their debts and creating own indebtedness.

Table 2. Verbal Description of the Level of Competitive Forces for Firms’ Benchmarking

Scale of unfitting (insufficient) parameters	Name of indicators and their verbal description			
	Bargaining Power of Customers	Bargaining Power of Suppliers	Threat of New Entrants	Competition among Existing Competitors
0	No	No	No	No
1	Low	Low	Low	Low
2	Moderate	Moderate	Moderate	Moderate
3	High	High	High	High
4	High	–	–	–

Source: author’s calculations

Estimation Results

Statistical data clearly estimate the shortage in number of firms operating on the market: there has been a decline by more than 25% during the last 6 years. Closer insight into statistics shows relative stability in figures for big and middle companies, whereas small and micro-companies have severely suffered, declining by 28.8% and 33.0% respectively.

Companies specializing in production of pharmaceutical ingredients hit their lowest point in 2012–2013 following slight growth, although representing bigger decline comparing to drug producers with above than 38% drop for 6 consecutive years (Table 3).

Table 3. The number of pharmaceutical companies in Ukraine in 2010–2015 by size and specialization

Year	Producers of ingredients	Producers of drugs	Total	Big Companies	Middle Companies	Small Companies	Micro Companies
2010	68	239	307	4	62	59	182
2011	59	256	315	4	61	51	199
2012	43	211	254	5	62	55	132
2013	43	205	248	7	63	53	125
2014	49	184	233	5	61	45	122
2015	42	187	229	5	60	42	122
<i>Abs change</i>	-26	-52	-78	+1	-2	-17	-60
<i>Change, in %</i>	-38.2	-21.8	-25.4	25.0	-3.2	-28.8	-33.0

Source: author’s calculations, SSSU (2017)

Some essential findings can be drawn from the analysis of financial results of Ukrainian pharmaceutical producers, namely (Table 4):

- Positive ratio of profitable companies to loss-making has fluctuated between 63.9% and 76.3% during 2010–2015. For the last 6 years firms managed to increase their profits by 194.3% while loss-making firms skyrocketed in making debts by 843.6%. Since 2010 pharmaceutical industry has been able to improve its financial results only for 140.1%.

- Five-year observations demonstrate positive relationship between company’s size and profitability: 100% of all big companies have been making profits, whereas only 70-80% of middle-sized enterprises announced to be profitable leaving behind 60% of small profitable firms. Moreover, big firms together with middle companies contribute about 97% of all profits in pharmaceutical industry.

- Financial indicators have been worsening steadily from year to year and finally

resulted in a collapse of small and medium business in 2014 which collected approximately 1 mln hrn of debts in one year. Financial result in pharmaceutical industry has plummeted by 37.3% during 2014.

Consolidated balance sheet of pharmaceutical producers estimates the increase in value of assets by 80% during 2012–2015. Almost 42% of corporate assets are concentrated in noncurrent assets and around 58% in circulating assets. Pharmaceutical industry in Ukraine requires modernization as 45.7% of its capital assets have been depreciated by the end of 2015. In four years companies could increase their stocks by 14.3% from 34.9% of circulating assets in 2012 to 39.9% in 2015, whereas remaining accounts receivable dropped by 8% from 53.9% in 2012 to 49.6% in 2015.

Table 4. Financial Results of Pharmaceutical Producers during 2010–2015, mln UAH

Years and the size of companies	Financial results before taxation (balance)	Profitable companies		Loss-making companies	
		% in the total amount of companies	Financial Result	% in the total amount of companies	Financial Result
2010	854.0	67.4	925.3	32.6	71.3
Big	411.1	100.0	411.1	–	–
Middle	418.9	83.6	474.0	16.4	55.1
Small:	24.0	62.3	40.2	37.7	16.2
<i>Micro companies</i>	–0.4	58.4	8.7	41.6	9.1
2011	858.0	65.0	903.0	35.0	45.0
Big	416.3	75.0	417.9	25.0	1.6
Middle	438.8	81.7	462.6	18.3	23.8
Small:	2.9	60.4	22.5	39.6	19.6
<i>Micro companies</i>	–2.9	60.0	7.1	40.0	10.0
2012	1217.9	63.9	1268.3	36.1	50.4
Big	635.7	100.0	635.7	–	–
Middle	563.3	80.6	591.8	19.4	28.5
Small:	18.9	56.7	40.8	43.3	21.9
<i>Micro companies</i>	0.3	53.0	9.5	47.0	9.2
2013	1422.9	67.5	1527.7	32.5	104.8
Big	858.4	100.0	858.4	–	–
Middle	544.5	77.8	624.4	22.2	79.9
Small:	20.0	62.3	44.9	37.7	24.9
<i>Micro companies</i>	–4.2	60.5	11.1	39.5	15.3
2014	892.0	66.4	1914.7	33.6	1022.7
Big	954.1	100.0	954.1	–	–
Middle	–54.1	70.7	920.0	29.3	974.1
Small:	–8.0	63.7	40.6	36.3	48.6
<i>Micro companies</i>	–0.3	61.9	7.1	38.1	7.4
2015	2050.3	76.3	2723.1	23.7	672.8
Big	N/A	N/A	N/A	N/A	N/A
Middle	N/A	N/A	N/A	N/A	N/A
Small:	47.3	75.0	65.3	25.0	18.0
<i>Micro companies</i>	5.4	71.4	16.2	28.6	10.8

Source: author's calculations based on data of SSSU (2017)

Such shifts in the structure of circulating assets lead us to an idea of changing investment policy of pharmaceutical companies. Due to severe social-economic situation in Ukraine firms are bargaining better commercial terms of cooperation with

their customers charging more payments in advance as well as acquiring more components, raw materials and other non-durable assets to generate more stocks.

At the same time, reserved capital makes only 3.2% of an equity capital, which is less than required by the legislation figure of 15%. The role of reserved capital is to secure from unpredictable obstacles that can arise in an entrepreneurial activity. Meanwhile, the ratio of short-run and long-run liabilities is estimated at 36.9% and 16.8% of total company's liabilities, which emphasizes the importance of financial and material provision of operational activity comparing to investments in capital and non-negotiable assets. As financial resources are very costly on Ukrainian market, stakeholders of pharmaceutical companies prefer to concentrate most of its capital in retained earnings, which is around 48-51%, for further reinvestments or debt repayment. It is known that retained earnings serve as an internal source of investments and their high share in equity capital makes companies be attractive for investors and company's credibility.

The vertical analysis of liabilities has shown the predominance of accounts payable in pharmaceutical industry. Slightly more than 66% of payables can state two main points: 1) inability of many companies to pay liabilities on time; 2) beneficial purchasing strategy due to the dominant position in negotiation with suppliers. The second major component is short-term bank loans that contributed around 20.2% to all current liabilities in 2015.

The prevailing role of accounts receivable and payable in forming of balance sheet undermine the smoothness of companies' cash flows. Moreover, there arise the problem of well-balanced cooperation with suppliers and customers. Companies need to analyze their market position, strong and weak points to formulate a trade off in marketing strategies, especially pricing and communication with counterparts.

As companies' most concern about their relationships with customers and suppliers, we have decided to calculate indicators of bargaining power of customers and suppliers of leading pharmaceutical companies in Ukraine.

About 70% of examined companies have difficulties in managing their receivables due to extremely high account receivable ratio and low turnover comparing with industry average indicators. Around 50% of pharmaceutical firms are urged to spend more costs for sales activities, which leads to ineffective cost-management and low marginal profits as well. The necessity to retain customers creates vicious cycle on the market because of inability of pharmaceutical firms to fulfil their payment obligations to suppliers of goods and services. Based on our calculations 60-70% of companies are incapable to meet their obligations in time (Table 5).

By comparing indicators of bargaining power with industry-average ones, we can observe that the majority of leading profit-making firms barely achieve the midpoint. Five companies from the list comply with three indicators, another two companies have two suitable indicators and the remaining ones have one, four and six fitting parameters. This leads to a conclusion that high profitability requires skillfulness and loyalty in negotiations with customers and suppliers. From the other viewpoint, there arises the problem of trustful and reliable business-relations (Table 5).

The look inside the companies gives no straightforward answer to the question on the relationship between bargaining power and volumes of net profit. Figure 1 shows bargaining power of customers and suppliers of pharmaceutical firms. In terms of companies five firms keep up high bargaining power of customers among them are

Farmak, Zdorovye, Kyivmedpreparat, Borshchahivskiy CPP and Indar. Such companies as Darnitsa, Kyiv Vitamin Factory, Galychpharm run well-balanced sales and purchasing strategies. There are only two firms from the list – Lekhim and Ukrmedprom – that are very careful with customers but keep the worst terms of cooperation with suppliers.

Table 5. Estimation of customers’ and suppliers’ power on Ukrainian pharmaceutical market in 2015

Company	Bargaining Power of Customers			Bargaining Power of Suppliers			
	Accounts Receivable Ratio	Gross Profit Margin	Sales Costs Efficiency	Accounts Receivable Turnover	Accounts Payable Ratio	Financial Dependence ratio	Accounts Payable Turnover
Farmak	0.41	0.59	0.23	7.58	0.19	1.57	4.91
Darnitsa	0.23	0.6	0.13	6.91	0.37	1.33	1.03
Kyiv Vitamin Factory	0.35	0.51	0.25	10.21	0.48	3.15	2.46
Zdorovye	0.36	0.24	0.03	6.43	0.27	1.4	1.35
Galychpharm	0.32	0.55	0.11	4.55	0.07	3.54	4.06
Kyivmedpreparat	0.3	0.39	0.15	5.06	0.04	1.83	9.3
Borshchahivskiy CPP	0.43	0.41	0.13	6.36	0.5	1.29	1.31
Lekhim	0.12	0.46	0.03	16.38	1.04	4.11	0.32
Indar	0.32	0.46	0.09	2.22	0.51	0.21	0.64
Ukrmedprom	0.04	1	0	33.97	0.91	1.04	0.06
<i>Average</i>	<i>0.29</i>	<i>0.52</i>	<i>0.12</i>	<i>9.97</i>	<i>0.44</i>	<i>1.95</i>	<i>2.54</i>

Source: author’s calculations

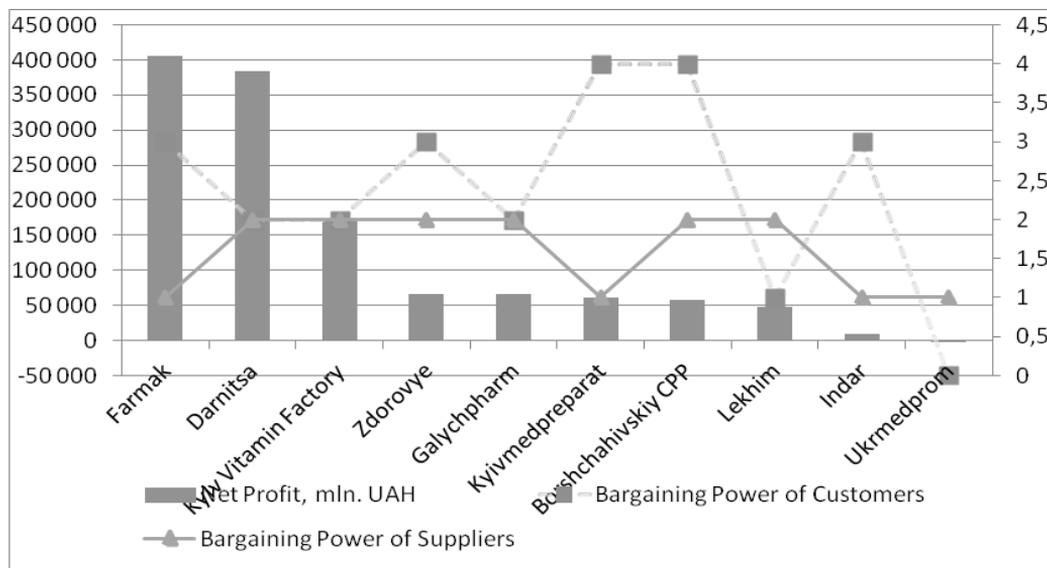


Figure 1. Relationship between Bargaining Power of Customers and Suppliers and Net Profit

Source: author’s calculations

Almost 70% of firms have their return on equity below industry-average indicator; 50% of companies from the list have insufficient return on assets (ROA), slow or even negative growth of net profit as well as poor liquidity (Table 6).

Table 6. Estimation of the Threat of New Entrants and Competition among Existing Competitors on Ukrainian Pharmaceutical Market in 2015

Company	Threat of New Entrants			Competition among Existing Competitors		
	Return on Assets	Growth of Revenue	Growth of Net Profit	Return on Equity	Cash Ratio	Working Capital Ratio
Farmak	0.15	42.93	67.94	23.26	0.97	1.6
Darnitsa	0.22	42.62	29.64	29.33	1.68	2.52
Kyiv Vitamin Factory	0.31	59.45	282.4	98.08	0.74	1.26
Zdorovyе	0.08	61.63	-11.77	10.86	1.34	2.38
Galychpharm	0.06	28.15	159.99	22.27	1.32	1.78
Kyivmedpreparat	0.04	42.18	-53.7	8.03	1.89	2.33
Borshchahivskiy CPP	0.05	36.64	23.24	6.55	0.97	1.72
Lekhim	0.22	72.02	172.72	91.51	0.64	0.92
Indar	0.2	-41.75	-88.75	4.02	0.97	1.65
Ukrmedprom	-0.02	-11.98	-34.54	-1.83	0.27	0.27
<i>Average</i>	<i>0.13</i>	<i>33.19</i>	<i>54.72</i>	<i>29.21</i>	<i>1.08</i>	<i>1.64</i>

Source: author's calculations

From a firm perspective the worst situation occurred with Ukrmedprom where threat of new entrants and competitive conditions is very severe considering the fact that this state-owned company finished 2015 with losses and negative growth of revenues. For the majority of firms threat of new entrants is less or equal to the level of existing competition (Figure 2).

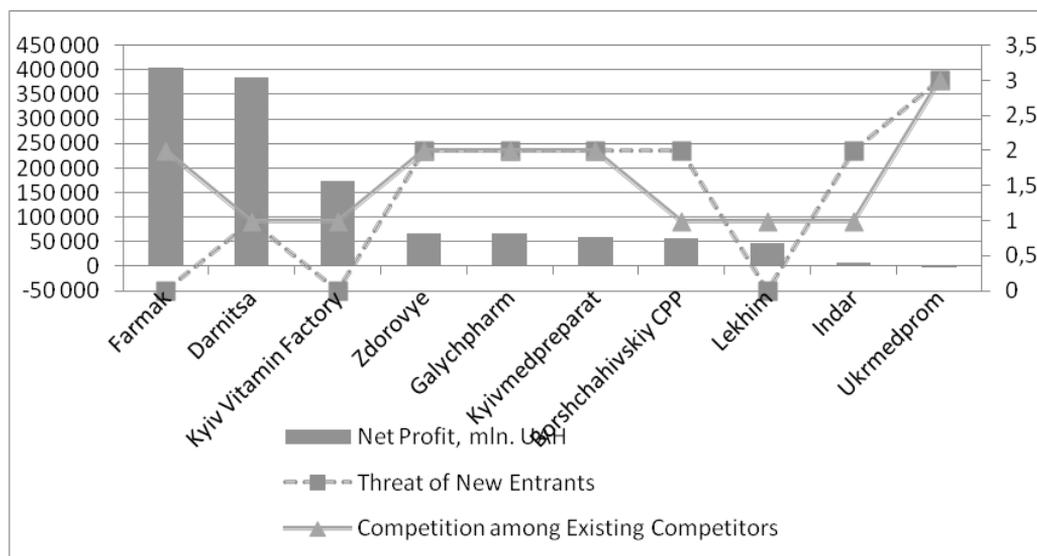


Figure 2. Relationship between Threat of New Entrants, Competition and Net Profit

Source: author's calculations

It means that despite fierce competition no bankruptcy or takeover is expected. In Borshchahivskiy CPP there are corporate disputes with Darnitsa company which holds 30% of shares on amendments concerning functions and membership in Supervisory Board. Other firm, Indar is currently experiencing litigation with Security Service of Ukraine regarding speculations with budget funds and the quality of substance in their insulin products.

From the list of indicators of competitive forces there is no clear view about the relationship between amount of generated profit and companies' market power (Table 7).

Table 7. Aggregated List of Pharmaceutical Companies in Terms of Competitive Forces in 2015

Company	Net Profit, mln. UAH	Bargaining Power of Customers	Bargaining Power of Suppliers	Threat of New Entrants	Competition among Existing Competitors	Sum of Unfitting Parameters
Farmak	405,415	3	1	0	2	6
Darnitsa	383,686	2	2	1	1	6
Kyiv Vitamin Factory	172,907	2	2	0	1	5
Zdorovyе	66,760	3	2	2	2	9
Galychpharm	66,239	2	2	2	2	8
Kyivmedpreparat	60,480	4	1	2	2	9
Borshchahivskiy CPP	57,092	4	2	2	1	9
Lekhim	47,225	1	2	0	1	4
Indar	8,471	3	1	2	1	7
Ukrmedprom	-1,266	0	1	3	3	7

Source: author's calculations

The main issue that can be derived from this data is that firms have different approaches to formulating their competitive strategy. In terms of risk-attitude we defined three types of competitive strategies: 1) high-risky strategy where companies have 9-8 unfitting parameters (Zdorovyе, Kyivmedpreparat, Borshchahivskiy CPP, Galychpharm); 2) moderate-risky strategy with 7-6 unfitting parameters (Indar, Ukrmedprom, Farmak, Darnitsa); 2) low-risky strategy with 5-4 unfitting parameters (Kyiv Vitamin Factory, Lekhim).

The most general explanation that can be developed is that high-risky strategy of Kyivmedpreparat and Galychpharm is the result of their ownership to Arterium Corporation that dictates the rules of cooperation with customers, Borshchahivskiy CPP also partially belongs to another big player on the Ukrainian pharmaceutical market – Darnitsa. We assume that for these three business-entities their parent company controls riskiness of managerial decisions regarding interaction with competitive environment.

Moderate-risky strategy of Indar and Ukrmedprom is caused by drop in their annual revenues and profits. Particularly, Indar has problems with customers and Ukrmedprom poorly manages its equity capital, so it should be capitalized more. Farmak and Darnitsa are market leaders among national pharmaceutical firms. It is clearly viewed that they retain high loyalty of counterparts by giving good terms of payments, though financial strategy which reflects profitability of equity and liquidity vary.

Conclusions

Tough competition with foreign pharmaceutical firms and rivalry with local ones put pressure on disposition of competitive forces in industry. The number of small firms is shortening steadily from year to year; meanwhile almost 30% of companies each year suffer from financial losses. That is why a trade-off between financial and marketing performance is crucial for pharmaceutical companies. The attempts to find key features of competitiveness of profitable companies embodied in a set of financial indicators for evaluating firms' competitive forces, which allowed us to conduct a

benchmarking analysis of profit-making companies on the Ukrainian pharmaceutical market.

The analysis of bargaining power of customers and suppliers has shown a definite pattern: market leaders are keen on offering better terms of payment for their customers, though in the same time they put huge pressure on suppliers of goods and services. The common feature of firms that are incapable of keeping margin between two indicators – is their inability to run independent management due to the ownership by rivals or to transfer pricing schemes within the holding structure. On a highly competitive pharmaceutical market firm's competitiveness depends on risk-attitude of managers, abilities to bargain better terms of cooperation and set up trustful relationships with suppliers and buyers. Despite profitable financial results of market leaders, the majority of these firms have insufficient indicators of receivables and payables ratios, as well as returns on assets and equity. Currently, achieving marketing and sales targets seems to be a higher priority comparing to a smooth financial performance.

References

- Altuntaş, G., Semerciöz, F., Mert, A. and Pehlivan, Ç. (2014), "Industry Forces, Competitive and Functional Strategies and Organizational Performance: Evidence from Restaurants in Istanbul, Turkey", *Procedia – Social and Behavioral Sciences*, Vol. 150, pp. 300-309.
- Crook, T.R. and Combs, G.J. (2007), "Sources and Consequences of Bargaining Power in Supply Chains", *Journal of Operations Management*, Vol. 25, pp. 546-555.
- Deari, F. and Dinca, G. (2015), "Financial Performances of Romanian Wood Industry Companies", *Bulletin of the Transilvania University of Braşov. Economic Sciences*, Vol. 8 No. 57, pp. 147-158.
- Dinu, F.A. and Dobrea, R.C. (2013), "Corporate SRI and Financial Performance: A Panel Data Analysis", *Journal of Applied Management and Investments*, Vol. 2 No. 3, pp. 168-175.
- Brigham, E.F. and Houston, J.F. (2009), *Fundamentals of Financial Management*, South-Western Cengage Learning, Mason, OH.
- Fabbri, D. and Klapper, F.L. (2016), "Bargaining Power and Trade Credit", *Journal of Corporate Finance*, Vol. 41, pp. 66-80.
- Florin, N. (2013), "A Comparative Analysis of the Financial Performance: Evidence from UK and Bangladesh", *Journal of Applied Management and Investments*, Vol. 2 No. 4, pp. 235-243.
- Hays, P.R. (1952), "Collective Bargaining, by Neil W. Chamberlain", *Indiana Law Journal*, Vol. 27 No. 2, pp. 301-319.
- Osmani, R. and Deari, F. (2016), "Firms' Financial Performance and Economic Recession: Evidence from Macedonian Listed Companies", *Bulletin of the Transylvania University of Braşov. Economic Sciences*, Vol. 9 No. 58, pp. 201-210.
- Porter M. (1979), "How Competitive Forces Shape Strategy", *Harvard Business Review*, Vol. 57 No. 2, pp.137–145.
- SSSU (2017), Activity of Large, Middle-Size, Small and Micro-Entrepreneurship Entities (2010–2015), State Statistics Service of Ukraine, available at:

- <http://www.ukrstat.gov.ua> (accessed August 27, 2017).
- SSSU (2016), *National Statistical Yearbook 2015*, State Statistics Service of Ukraine, Kyiv.
- SMIDAU (2015), Corporate Financial Statements of Pharmaceutical Companies, Stock Market Infrastructure Development Agency of Ukraine, available at: <https://smida.gov.ua> (accessed August 27, 2017).
- Takata, H. (2016), "Effects of Industry Forces, Market Orientation, and Marketing Capabilities on Business Performance: An Empirical Analysis of Japanese Manufacturers from 2009 to 2011", *Journal of Business Research*, Vol. 69 No. 12, pp. 5611-5619.
- Vegesna, S. and Dash, M. (2014), "Efficiency of Public and Private Sector Banks in India", *Journal of Applied Management and Investments*, Vol. 3 No. 3, pp. 183-187.
- Vithessonthi, C. and Tongurai, J. (2015), "The Effect of Firm Size on the Leverage-Performance Relationship During the Financial Crisis of 2007-2009", *Journal of Multinational Financial Management*, Vol. 29, pp. 1-29.
- Voulgaris, F. and Lemonakis, C. (2014), "Competitiveness and Profitability: The Case of Chemicals, Pharmaceuticals and Plastics", *Journal of Economic Asymmetries*, Vol. 11, pp. 46-57.
- Wua, K-J., Tsengb, M-L. and Chiuc, S.F. (2012), "Using the Analytical Network Process in Porter's Five Forces Analysis – Case Study in Philippines", *Procedia – Social and Behavioral Sciences*, Vol. 57, pp.1-9.
- Zhao, Z.Q., Wu, D.X. and Sha, S. (2015), "Bargaining Power of Suppliers and Buyers, and Accounting Conservatism – Evidence from Chinese Manufacturing Listed Companies", *Journal of Financial Risk Management*, Vol. 4, pp. 11-21.

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Abstract

Nowadays strong market position of a company is not only about figures of revenue and profit, but also the ability to build sustainable relationships with consumers, suppliers and competitors. From this standpoint, there has been developed a model for evaluating companies' position in competitive environment. Grounding on postulates of M. Porter's model of competitive forces, we suggested the model that encounters quantitative and qualitative parameters. Financial implications of skillful operational management bring about proper balance between amounts of receivables and payables that jointly give certain bargaining power on the market. Developed model showed three behavioral patterns toward riskiness of managerial decisions, namely high-risky, medium and low-risky competitive strategies. Level of risk depends on the ability to make challenging decisions regarding sales, purchasing and financial issues. On a highly competitive market, companies retain market share by sacrificing financial indicators of receivables, payables, returns on equity and assets.

Keywords: bargaining power, benchmarking analysis, competitive environment, competitive forces, pharmaceutical companies