Kyiv National University of Trade and Economics
Department of international economic relations

FINAL QUALIFYING PAPER
on the topic:
“International competitiveness of the enterprise in the market of pharmaceutical products”
(based on the data of PJSC "MONPHARM", Monastyryshche, Cherkasy Oblast)

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ВИПУСКНА КВАЛІФІКАЦІЙНА РОБОТА

на тему:

«Міжнародна конкурентоспроможність підприємства на ринку фармацевтичної продукції»

(на матеріалах ПАТ «МОНФАРМ», м. Монастирище, Черкаська область)

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Київ 2018

Kyiv National University of Trade and Economics
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SUMMARY
TO THE FINAL QUALIFYING PAPER
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(based on the data of PJSC "MONPHARM", Monastyryshche, Cherkasy Oblast)

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Final qualifying paper: 119 p., Illustrations - 25, Tables - 30, appendices - 15, references - 97

The object of investigation is the process of ensuring the competitiveness of the company in the pharmaceutical industry by entering the external market.

The subject of investigation are theoretical and methodological approaches of competitiveness in the foreign market in the pharmaceutical industry.

Enterprise that is a basis for writing the final qualifying paper is PJSC "MONPHARM".

Purpose of final qualifying paper is to find the best way of incresing the company's competitiveness in the foreign market of pharmaceutical products.

Task:

- to determine the essence of competitiveness of the enterprise in the foreign market;
- to determine factors ensuring the competitiveness of the enterprise of pharmaceutical industry;
- to characterize methodological approaches of evaluation the competitiveness of the enterprise in the foreign market;
- to analyze the financial and economic activity of PJSC "MONPHARM";
- to monitor the foreign economic environment of the enterprise;
- to evaluate of international competitiveness of PJSC "MONPHARM" in the market of pharmaceutical products;
- to determine reserves of international competitiveness improvement of pharmaceutical industry enterprise;
- to develop a complex of measures for increasing the international competitiveness of PJSC "MONPHARM";
- to make a forecasted evaluation of the proposed measures.

Methods of investigation: theoretical methods (in determining the problem and formulating the research hypothesis), analytical methods (in describing information about the enterprise and its external contextual activity), comparison (analysis of financial indicators of the enterprise and the efficiency of the foreign economic transaction), the abstract-logical method (theoretical generalizations and conclusions formulation), mathematical methods (during the calculation of the effect and

effectiveness of the current and alternative export operations), as well as the graphic method was used in the final qualified paper in full.

In the introduction to the final qualifying paper the relevance of the problem represented by the chosen topic is explained. The urgency of its practical significance is formulated. The object and the subject of the final qualifying paper are represented, and the main objectives are determined. Moreover scientists who were engaged in research on this topic are introduced. Also methods that were used in the final qualifying paper are descried.

In the first part of the final qualifying paper "Theoretical approaches of international competitiveness of the enterprise in the market of pharmaceutical products» the essence of competitiveness of the enterprise in the foreign market is defined. There is described the factors ensuring the competitiveness of the enterprise of pharmaceutical industry. Methodological approaches of evaluation the competitiveness of the enterprise in the foreign market are represented.

In the second of the final qualifying paper "The research of competitiveness of PJSC "MONPHARM" in the market of pharmaceutical products" financial and economic activity of PJSC "MONPHARM" are analyzed, monitoring of foreign economic environment of the enterprise is provided. International competitiveness of PJSC "MONPHARM" in the market of pharmaceutical products is assessed.

In the third part of the final qualifying paper " The ways of increasing the international competitiveness of PJSC "MONPHARM" in the market of pharmaceutical products" reserves of international competitiveness improvement of pharmaceutical industry enterprise are determined. A complex of measures for increasing the international competitiveness of PJSC "MONPHARM" are developed. Evaluation of the proposed measures in the company was provided and scenarios for the further development are forecasted.

Conclusions and proposals contains theoretical generalization and ascertain solutions to the given scientific problem, the essence of which is to choose the most favorable way to increase the competitiveness of the enterprise, namely, in the entry of the new markets and annual growth of the export efficiency.

АНОТАЦІЯ

Дзюба А.О. Міжнародна конкурентоспроможність підприємства на ринку фармацевтичної продукції

Випускна кваліфікаційна робота на здобуття освітнього ступеня магістра за спеціальністю 051 "Економіка", спеціалізацією "Міжнародна економіка". Київський національний торговельно-економічний університет, 2018.

У випускній кваліфікаційній роботі визначено сутність міжнародної конкурентоспроможності підприємства на зовнішньому ринку, розглянуто фактори забезпечення міжнародної конкурентоспроможності підприємства на ринку фармацевтичної продукції. Крім того у роботі охарактеризовано методологічні засади оцінки міжнародної конкурентоспроможності підприємства на зовнішньому ринку.

Наведені результати аналізу фінансово-господарської діяльності ПАТ "МОНФАРМ". Розглянуто фактори впливу зовнішньоекономічного середовища підприємства на його діяльність у формі PESTLE аналізу. Проведено оцінку міжнародної конкурентоспроможності ПАТ "МОНФАРМ" на ринку фармацевтичної продукції.

Проаналізовано можливі способи підвищення міжнародної конкурентоспроможності ПАТ "МОНФАРМ" на ринку фармацевтичної продукції, та в результаті розроблено комплекс заходів підвищення міжнародної конкурентоспроможності підприємства, що полягає у виході на нові ринку збуду та проведення там рекламної кампанії. Наведені результати оцінки ефективності запропонованих заходів у розрізі оптимістично, реалістичного та песимістичного сценаріїв.

Ключові слова: конкуренція, конкурентоспроможність, експорт, експортна ефективність, фармацевтична галузь, фармацевтична продукція, лікарські засоби, зовнішньоекономічна діяльність, зовнішній ринок.

ABSTRACT

Dziuba A. International competitiveness of the enterprise in the market of pharmaceutical products

Final qualifying paper for obtaining a master's degree in specialty 051 "Economics", specialization "International Economy". Kyiv National University of Trade and Economics, 2018.

In the final qualifying paper the essence of competitiveness of the enterprise in the foreign market is determined, factors ensuring the competitiveness of the enterprise of pharmaceutical industry are considered. Moreover, methodological approaches of evaluation the competitiveness of the enterprise in the foreign market are characterized.

The results of the analysis of financial and economic activity of PJSC "MONPHARM" are given. The factors of influence of the foreign economic environment of the enterprise on its activity in the form of PESTLE analysis are considered. International competitiveness of PJSC "MONPHARM" in the market of pharmaceutical products is evaluated.

Possible ways of increasing international competitiveness of PJSC "MONPHARM" in the market of pharmaceutical products are analyzed, and as a result developed a set of measures to enhance the international competitiveness of the enterprise, which is to enter a new market and to conduct an advertising campaign there. The results of the evaluation of the effectiveness of the proposed measures in terms of optimistic, realistic and pessimistic scenarios are presented.

Key words: competition, competitiveness, export, export efficiency, pharmaceutical industry, pharmaceuticals, medical products, foreign trade, foreign market.

CONTENTS

INTRODUCTION

Competitiveness of the enterprise is one of the main indicators of the success of its activities, as in the domestic and foreign markets. It includes a system of factors that determine whether a company is able to compete on the market. Firstly, these are internal factors such as: the economic stability of the enterprise, the level of R&D expenditures, the features of enterprise management and production capacity. As for external factors, they include the level of economic development of the country and the level of competitiveness of the industry. Therefore, determining the level of enterprise competitiveness and choosing a winning competitive strategy is the main task of the company. However, when choosing the right strategy, it is very important to pay attention to the industry in which the company plans to carry out its foreign economic activity. There are many industries that have their own specifics, so the process of entering the market, and especially the ability to remain competitive, is a rather complicated process.

The pharmaceutical industry is one of the fastest growing economic sectors that represent a large number of enterprises on the Ukrainian market and abroad. Growing demand for medical products, the volume and variety of offerings, the economic attractiveness of the pharmaceutical business, the number of entities, and as a result, increase competition, encourage manufacturers of specific products, implementing new strategies and programs, to improve their competitiveness, gain and retain stable competitive positions. That is why the pharmaceutical industry can be considered one of the most difficult to penetrate and to regain competitive position.

Nowadays the pharmaceutical market is still competitive and is represented by large companies, which are seting a vector of development.

The most important players in this market are the United States and European Union countries. Companies of these countries belong to the ten most successful pharmaceutical companies in the world (for example: Pfizer, Novartis, Roche, Johnson & Johnson, Merck & Co, Sanofi, GlaxoSmithKline, AbbVie, Gilead Sciences, Amgen), due to their financial capabilities and scientific background.

Despite the fact that in recent years in other regions such as China and India, there has been a growth in life science markets due to the availability of powerful capital opportunities and increased demand for products and devices, the United States and Europe remain the mainstream of pharmaceutical consumption. The Middle East and North Africa region (MENA) accounts for only 2% of world sales of medicines. It is clear that companies in the Ukrainian market are inferior to world leaders, but it is not necessary to underestimate their competitiveness on the foreign markets.

In the study on competitiveness and development of methods for assessing the competitiveness of enterprises in domestic and foreign markets many scientists are involved. The foundation of the present study were researchers working various areas, especially scientific and theoretical aspects of competition were introduced and summarized by A. Smith, J. Robinson., J. Schumpeter, F.A. Hayek, K.P McConnell and S.L. Bru, M.E Porter. The issues of competition, competitiveness and competitiveness of the enterprise have been reflected in the scientific works of such domestic scientists, as A. Mazaraki, T. Melnyk, Y. Tunitskaya, L. Balabanova, O. Piddubny, J. Zavadsky O. Maslyayeva, S. Yaroshenko and other.

Despite significant scientific research in the area of international competitiveness research, the tools of increasing the competitiveness of pharmaceutical industry companies remain poorly investigated, taking into account the complexity of conducting research, caused by rapid changes in the environment and the differences between individual enterprises.

The object of the final qualifying paper: the process of ensuring the competitiveness of the company in the pharmaceutical industry by entering the external market.

The s*ubject of the final qualifying paper:* theoretical, methodological and practical approaches of competitiveness in the foreign market in the pharmaceutical industry.

The purpose of the research is to find the best way of increasing the company's competitiveness in the foreign market of pharmaceutical products.

Objectives:

- to determine the essence of competitiveness of the enterprise in the foreign market;

- to determine factors ensuring the competitiveness of the enterprise of pharmaceutical industry;
- to characterize methodological approaches of evaluation the competitiveness of the enterprise in the foreign market;
- to analyze the financial and economic activity of PJSC "MONPHARM";
- to monitor the foreign economic environment of the enterprise;
- to evaluate of international competitiveness of PJSC "MONPHARM" in the market of pharmaceutical products;
- to determine reserves of international competitiveness improvement of pharmaceutical industry enterprise;
- to develop a complex of measures for increasing the international competitiveness of PJSC "MONPHARM";
- to make a forecasted evaluation of the proposed measures.

In order to achieve the purpose, the following methods were used in the final qualifying paper: theoretical methods (in determining the problem and formulating the research hypothesis), analytical methods (in describing information about the enterprise and its external contextual activity), comparison (analysis of financial indicators of the enterprise and the efficiency of the foreign economic transaction), the abstract-logical method (theoretical generalizations and conclusions formulation), mathematical methods (during the calculation of the effect and effectiveness of the current and alternative export operations), as well as the graphic method was used in the final qualified paper in full.

Information base of the research: when writing the final qualifying paper website data of the European Parliament, the Eurasian Development Bank and the European Commission information base, the International Monetary Fund statistics, the information base of the Ministry of Finance of Ukraine, the financial statements of PJSC MONPHARM, statistical World Bank Information, United Nations Commodity Trade Statistics Databases, publications of the World Health Organization were used.

Structure of the final qualifying paper: 119 p., Figures - 25, Tables - 30, appendices - 15, references – 97.

PART 1. THEORETICAL APPROACHES OF INTERNATIONAL COMPETITIVENESS OF THE ENTERPRISE IN THE MARKET OF PHARMACEUTICAL PRODUCTS

1.1. Essence of competitiveness of the enterprise in the foreign market

In conditions of globalization, the success of domestic enterprises in foreign markets is determined, first of all, by the competitiveness of their products. Competition is a rivalry between market economy participants for the best conditions for the production, purchase and sale of goods. This is the center of gravity of the whole system of market economy, the type of relationship between producers on the establishment of prices and volumes of supply of goods in the market [15, p. 42].

Competition means rivalry in any field between separate legal entities or individuals (competitors) who are interested in achieving the same goal - advantages over their rivals (competitors). From the point of view of the enterprise, such a goal is to maximize profits by taking advantage of consumers. And although this goal focuses on the development of the market since its inception, the first most integral theoretical positions about the driving forces of the competitive struggle appeared only in the middle of the eighteenth century. Classical political economy considered competition as a common phenomenon that penetrated all branches of the economy and is limited only by subjective reasons. A. Smith first proved that competition, equalizing the rate of profit, leads to an optimal division of labor and capital. It should balance private interests and economic efficiency. A. Smith considered competition to be an "invisible hand" of the market, which automatically balances the market, and thus regulates the correspondence of private and public interests [79, p. 9].

Each company that enters the market with its own products, trying to achieve an advantage over other companies. The possibilities of an enterprise in achieving such an advantage are defined by such a concept as competitiveness [79, p. 8].

Competitiveness is manifested only in conditions of competition. In countries with market economies, the competitiveness of the enterprise is the result of the interweaving of factors generated by the objective development of productive forces, which reflect

the results of the policy of large monopolies in the struggle for quality, markets and profit. Competitiveness is one of the main concepts that is actively used in the theory and practice of economic analysis, stands for a multi-faceted concept, which in translation from Latin means rivalry, struggle for the best results [46, p. 58]. For its characteristics, the concept of comparative costs (D. Ricardo), comparative advantages (E. Heckscher, B. Olin), comparison of competitive advantages, factors of management and productivity of the use of resources (M. Porter), the competitive status of the firm (I. Ansoff) [13, p. 25].

In the economic literature, there are four basic levels of competitiveness of the enterprise [54, p. 268]:

- the first level - managers care only about the release of products, the consumer is not considered;

- the second level - managers want the products of the company to fully meet the standards set by competitors;

- the third level - managers no longer consider the standards of competitors, but themselves gradually become "fashion legislators" in the industry;

- the fourth level - when success in the competition ensures, first of all, management and the enterprise becomes completely "the fashion regulator" in a certain market.

Different scholars interpret the term "competitiveness" in different ways, based on their points of view (Table 1.1).

The variety of author's positions regarding the definition of the concept of competitiveness is related to:

• identification of the competitiveness of the enterprise and the competitiveness of products or services;

• the scale of the review of competitiveness: at the regional, national or global market (enterprise, industry, country);

• replacement of one concept by another (competitive status, competitive level);

• the characterization of any component of the competitiveness of the enterprise: the competitiveness of the industrial and labor potential [96, p. 98].

Table 1.1

Definition of the concept of "competitiveness" by economists

Authors	Definition
Porter M. [66, p. 231]	Caused by economic, social and political factors, the state of a country or a separate commodity producer in the domestic and foreign markets.
Maslyayeva O.O. [53]	The combination of advantages and abilities of the subject in comparison with similar to him in the struggle to achieve the purpose characteristic of them, under the conditions of the laws of a certain environment (system).
Zavadsky J.S. [95, p. 139]	Ability to operate in open market conditions and to remain profitable for a long time.
Fathutdinov R.A. [33, p. 23]	Property of an object, characterized by the degree of real or potential satisfaction of specific needs, in comparison with similar objects that exist in this market.
Yaroshenko S.P. [94, p. 136]	The ability of an enterprise to operate in conditions of market relations, obtaining profits sufficient for scientific and technical improvement of production, stimulation of workers and maintaining the quality of products at a high level. Competitiveness of production is mainly reduced to the competitiveness of products.
Voronin G.O. [91, p. 18]	Multifaceted concept, which includes not only high-quality and price parameters of industrial products, but also depends on the level of management, management of financial flows, investment, etc.

Source: compiled by the author based on [66, p. 231];[53]; [95, p. 139]; [33, p. 23]; [94, p. 136]; [91, p. 18]

Thus, competitiveness is the ability of an enterprise to compete in the industry, in the national and global markets. It should be noted that the change in competitiveness occurs under the influence not only of managerial actions on enterprises, but also is a consequence of the activities of competitors. Therefore, competitiveness is characterized by a high level of volatility, which requires maintaining stability and stability in unfavorable environments.

Competitiveness classification:

1. Territorial-geographical feature: International, internally national, regional;
2. Level of competing objects: industries, enterprises, goods;
3. Time fixation for a certain date, current, forecasting [14, p. 87].

The competitiveness of the product reflects its ability to fully respond to customer inquiries in comparison with similar products presented on the market. It is determined by the competitive advantages: the quality of goods, its technical level, consumer properties, prices, established by sellers of goods; advantages in guarantee and after-warranty service, advertising, image of the manufacturer, as well as the situation on the market, fluctuations in demand. The high level of competitiveness of the goods proves the expediency of its production and the possibility of profitable sales.

At the same time, the competitiveness of the product - it is inefficient maneuvering in the market space and in time, and most importantly - the maximum consideration of the requirements and capabilities of specific groups of buyers. Reasons for the competitiveness of the product need to be sought in the competitive advantages of certain of its characteristics, which is the consequence of more effective management of the development, implementation and operation of the proposed products [96, p. 100].

Of course, the criteria, characteristics of competitiveness at the level of goods, firms, corporations, industries, have their own specifics that need to be analyzed in different ways. The competitiveness of the product shows a more complete ability to meet the requirements of buyers compared to similar products in the market. It is determined by the competitive advantages: quality of production, production costs, prices, technical support, service, advertising, image of the manufacturer, as well as the situation on the market. The high level of competitiveness of the goods suggests the expediency of production and the possibility of obtaining a good profit.

The competitiveness of the industry is determined by the availability of technical, economic and organizational conditions for creation, production and sales (with costs not higher than international ones) of high quality products that meet the requirements of specific groups of consumers. Competitiveness of the industry - is the ability not only to win the competition, but also to take an active part in it [25, p. 87].

The competitiveness of an enterprise should be understood as the ability of a firm to study demand (market), the ability to manufacture and sell goods that by their properties better meet consumers' needs than competitors. Competitiveness of the enterprise is characterized by the ability to adapt to the conditions of the environment.

Here are some approaches to determining the competitiveness of an organization. The concept of competitiveness is directly related to the term "competitive organization", which can be interpreted as the superiority of the company's goods (services) over analogues in specific market segments over a certain period of time on the potential to develop, produce and market competitive products (services) in the future, achieved without compromising the financial position of the organization [96, p. 100].

Determination of the competitiveness of the organization, according to H. Kiperman, is incomplete, because it does not take into account that organizations compete in specific markets at a certain time, the advantage is that it emphasizes the effectiveness of economic activity as a crucial element of the organization's competitiveness. Understanding the essence of the "competitiveness of the organization," according to R. A. Fatkhutdinov, is incomplete, because it reduces the competitiveness of the organization to the release of competitive products, in fact thereby equating these two concepts. The same defects have the definition given by V.Y. Khrutsky, I.V. Korneyev, but, unlike R. Fatkhutdinov, they specify that competitiveness is achieved in specific markets in this period of time.

Most scholars on this subject offer to unite in one concept "competitiveness of the product" and "competitiveness of the organization". This statement is not entirely correct, because the buyer does not always know which manufacturer owns the product, and even if he knows the name of the firm, this name does not always say something. The competitiveness of products and the competitiveness of the producer of products relate to each other as part and whole. The ability of a company to compete in a particular commodity market directly depends on the competitiveness of the product and the totality of economic practices of the firm that influence the results of the competition [96, p. 100].

R. Hayes, S. Wilrayt and D. Clark distinguish four main levels of enterprise competitiveness:

• management of enterprises of the first level considers the organization of management as something intra-neutral. The role of the company's managers is only to

produce products without worrying about any surprises for competitors and consumers. They are confident in the design and technical level of their products, sales organization and advertising effectiveness. This approach is successful if the company is able to find its market niche, which will keep it from immediate competition. But if an enterprise grows the niche up, it inevitably has to enter a competitive struggle with other manufacturers and take care of creating competitive advantages;

• companies of the second level of competitiveness strive to ensure that their enterprises fully meet the standards established by their main competitors - technical techniques, technologies, methods of organizing the production of leading industry enterprises. They follow the same principles and approaches in quality management of products, but using of stereotypes by some companies does not make them competitive, and in the face of intensified competition, they begin to depart from them;

• third-level companies compete successfully not only due to the function of production, but also the management, quality, efficiency of management and organization of production in the broadest sense. Such companies are for many years ahead of their competitors;

• the fourth-tier competition companies challenge any competitor around the world in any aspect of production or management; this is a world-class enterprise.

Third- and fourth-tier competitiveness companies are "strategically important enterprises" or "strategic enterprises" [7, c. 380].

One of the criteria that determines the company's success in the global market is its international competitiveness. International competitiveness should be understood as the achievement of an enterprise's competitive advantage in rivalry in the international market. One of the most common is the definition of competitive advantages as a set of certain characteristics of a product or brand that has a certain advantage over competitors, which are determined in comparison with the most significant characteristics. Competitive advantages show in which directions the firm has achieved the best results for competitors. Competitive advantages make it possible to choose the right strategy for positioning products on the market, choosing target segments in the market and concentrating their financial resources there. By the source of the emerging

competitive advantages can be divided into internal and external. Internal - are those characteristics of the internal activity of the enterprise, which exceeds the characteristics of the main competitors. External competitive advantages are those based on the ability of an enterprise to offer meaningful value to consumers, which enables them to meet their needs better, reduce costs, or increase their efficiency.

A company's international competitiveness may diverge from its competitiveness in the home country. It may happen that company is profitable in its country with a large domestic market share, but it might show low international competitiveness. In case, when the domestic market is protected by barriers to international trade, the present competitiveness would be compromised if domestic market were opened to trade. In addition, some companies may sacrifice competitiveness in the home market for a greater penetration in foreign markets [17, c. 11].

There are at least two main views on the origin of the company's competitive advantages. On the one hand, industrial organization scientists concentrate on the impact of industry determinants on the company's performance and, in particular, underscore the importance of factors such as concentration, entry and exit barriers and economies of scale.

Scientists of the classical industrial organization (E. Mason; J. Bain) claim that the company cannot influence the industry and its own productivity. Consequently, the competitive advantage comes from external sources, and not from internal (specific branded) sources. A modified structure was developed by new industry researchers, which recognizes that companies have a certain influence on the relationship between the structure of the industry and the company's productivity (G. Hansen and B. Wernerfelt, 1989). According to Porter [67, p.135], competition in the industry is determined by five structural parameters: current industry competition, trade capacity of suppliers, the ability to trade buyers, the threat to new entrants, and the threat of replacement of products or services. From the point of view of Porter, the ways of industrial development depend (among other things) on the strategic choice of the company [17, p. 5].

The vertical dimension refers to the way competitiveness is intended. Competitiveness can be treated as a dependent or independent variable: the first approach looks at competitiveness as driver of a company's performance whereas the second one considers competitiveness as outcome of a company's competitive advantages. Under different conditions, the difference between them may be manifested in the differences between competitiveness 'ex ante' and competitiveness 'ex post'. Competitiveness can be also considered in terms of static vs. dynamic analysis (Figure 1.1).

Approach / Nature of competitiveness	Static (Assets/resources)	Dynamic (processes)
Driver	1.Resource- based view	2.Competence-based view
Outcome	4.Financial ratios market share and other nonfinancial parameters	3. Trend pf profitability. Market-based and other indicators

Figure 1.1. Analysis of competitiveness of the enterprise

Source: compiled by the author based on [17, p. 7]

Competitiveness as a driver. Within this view there are included all research about the sources of a company's competitive advantage. The main classification of the sources of a company's competitiveness distinguishes between internal sources and external sources [10, p. 4].

Internal sources could be classified as tangible and intangible and employee-related and company - related:

- internal intangible sources associated with the company mainly include organizational resources, transformational and outsourcing capabilities, as well as knowledge of the company as a whole;

- internal non-material sources related to employees, mainly include company strategies, human resources, managerial capabilities and knowledge of individuals;

- internal material relations with the source company include physical and financial resources, as well as incoming and some functional capabilities [17, p. 7].

On the other hand, external sources related to the industry include all variables related to the structure of the industry and competition, such as, for example, poor trading capacity of suppliers and buyers, low competition among existing company s in the industry, and the threat of low replacement and new members (Porter, 1980). Finally, external sources related to the national economy include variables characterizing the characteristics of the national economy [17, p. 8].

Internal sources of competitive advantage can be considered by both static and dynamic approach: the first focuses on resources and assets at the core of the company's competitiveness; resource based view studies fall within this domain. The second one refers to management processes that transform and deploy those assets so as to achieve performance. Specifically, the competence-based approach emphasizes the dynamic component of the competitiveness construct. Whereas resources are the basis of companies' capabilities, capabilities represent the way companies unfold their resources [17, p. 8].

Another element to take into account is the spatial dimension. In the case of diversified companies business level competitiveness and corporate level competitiveness may diverge. Similarly, if we look at foreign markets, competitiveness may diverge from country to country even if increasing globalization tends to make competition homogeneous worldwide [17, p. 10].

In general, international competitiveness can be defined as the ability of a company to achieve greater productivity than its competitors in foreign markets, and to maintain conditions that support its higher productivity in the future. International competitiveness is also regarded as the company's ability to create and sell products, price and non-price quality which are more attractive than similar products of competitors on the international market [61, p. 71].

The international competitiveness of the company reflects the possibility of effective production and economic activity in a global competitive market. It is provided with the full range of existing company resources [33, p. 112].

The production and sale of competitive goods and services is a general indicator of viability of a company, its ability to use effectively its financial, industrial, scientific and technological and labor potential.

1.2. Factors ensuring the competitiveness of the enterprise of pharmaceutical industry

The pharmaceutical industry is currently one of the most promising sectors of the economy. The pharmaceutical market has turned into the third millennium as a powerful industrial sector, one of the five most profitable branches of the world economy. According to the OECD classification, the pharmaceutical industry belongs to the science-intensive industries and, according to Eurostat, it is the world leader among the high-tech industries for creating gross value added for the occupied person, while about 1/5 of all R & D expenditures in the world account for the pharmaceutical industry production [6, p. 141].

Also, the pharmaceutical sector is one of the most advanced in terms of capital intensity, stable growth rate, and social significance for the global economy.

Recent trends and trends in the development of the global pharmaceutical market, which have developed over the past years, are:

- deepening of pharmaceutical globalization;
- harmonization of the legislative framework and activation of reforms in the system of health protection;
- increasing the scope of R & D and production of medicines in China and India, as well as in other countries where it is possible to reduce costs;
- the emergence of pharmaceutical companies in markets with better prospects and growth opportunities;
- distribution of practice of diversification of activities by the largest pharmaceutical companies;
- aggravation of the problems associated with the increase in the number of counterfeit and poor-quality medicines in the market;

- distribution of concentration trends through mergers and acquisitions in the global pharmaceutical market [36, p. 55].

The competitiveness of the pharmaceutical manufacturer of medicines and medical products should be considered as a system of continuously interacting complex of factors that characterizes the degree of realization of real and potential opportunities for the formation of new competitive advantages over a long period of time. Therefore, the provision and increase of competitiveness implies a dynamic adaptation of the pharmaceutical company to changing factors and conditions of the business environment.

An important prerequisite for the formation of a company's competitiveness is the definition of a set of factors whose influence can increase and reduce its overall level.

These factors can be transformed into a competitive advantage only when they will have a positive, stimulating effect on the functioning of the enterprise [77].

The level of competitiveness of the pharmaceutical enterprise characterizes the investment attractiveness and provides an opportunity to attract foreign investment, as well as creates preconditions for the development of individual enterprises and scientific and technological progress. The higher the level of competitiveness of an enterprise, the more opportunities it has for development both in the middle of the country and for entering the external market [80].

The set of factors that affect and ensure the competitiveness of the enterprise are so significant and peculiar that there is no single methodology for collecting data on their processing and identification for the adoption of appropriate decisions. At the same time, quite a large number of such factors, makes it pay special attention to the so-called competitive advantages of the company, which provide the company with an advantage over direct competitors.

Factors that affect the competitiveness of an enterprise can be:

- basic or derivative (secondary);
- general or specialized;
- external or internal;
- material or virtual.

The following can be attributed to the basic factors influencing the competitiveness of the enterprise:

- natural (climatic conditions, geographical position);
- demographic;
- unskilled and low-skilled labor;
- availability of some or other resources.

One of the main factors of the competitiveness of the pharmaceutical market is the overall growth of the purchasing power of the population. However, this reason is not the only one. According to experts, the market tends to increase the proportion of more expensive and, as a rule, more effective drugs by reducing the segment of cheap classical drugs. There are also subjective reasons for increasing the market share of expensive drugs: the buyer, like in other areas of consumption, follows fashion trends [47].

For competitiveness, derivatives are more important because they provide competitive high-order benefits. These factors include:

- modern information exchange infrastructure;
- highly skilled personnel;
- high-tech production;
- research structural divisions in the country, industry, enterprise.

Great influence on the competitiveness of pharmaceutical products is the level of its high-tech. Research and development of new drugs require the active use of technologies, including biotechnology. In order to increase the international competitiveness of the pharmaceutical industry, it is necessary to create a national social system that facilitates research in the field of pharmacy in the domestic and foreign markets [6, p. 142].

If we talk about the Ukrainian market, then there are prospects for creating a complete technological cycle for the production of immunological products using substances developed by domestic scientists. Ukraine has a historically formed scientific school of microbiology and virology, presented by L.V. Gromashevsky Institute of Epidemiology and Infectious Diseases, I.I. Mechnikov Institute of

Microbiology and Immunology, Institute of Microbiology and Virology National Academy of Sciences of Ukraine etc.

Realization of domestic potential in this sphere is possible only with the deep integration of scientific institutions, state enterprises, financial institutions and private business. An important direction in the development of high-tech and science-intensive industries in the pharmaceutical industry is the establishment of antibiotics production, which is the largest segment of the biotech market in the world. The main trend in the production of antibiotics in the world is to reduce the number of new antibiotic treatments due to their relatively low commercial attractiveness, since antibiotics are intended for short-term treatment of certain acute diseases, as well as high competition on the world market. Therefore, most large pharmaceutical companies prefer the market development of more profitable drugs for the treatment of chronic pathologies [86, p. 163].

According to the principle of specialization, the factors of competitiveness are divided into:

- general: modern infrastructure, highly skilled personnel, system of information support and others;

- specialized: personnel with a narrow specialization, specific infrastructure, databases in certain fields of knowledge, etc.

The general factors give competitive advantages of a limited nature that are easy to obtain by competitors or which can be bypassed, while specialized ones - form a solid and long-term basis for competitive advantage. Specialized factors are less common, they are needed for more sophisticated forms of competition, which makes them an essential condition for recovery and requires more targeted and risky funding.

Employees of pharmaceutical companies, as a rule, have specialized pharmaceutical or engineering education, which allows them to better focus on all the intricacies of the creation and production of products. The high pace of development of science and technology creates the need for systematic upgrading of skills in the staff. The experience of the most successful domestic and foreign companies shows that the investment in the personnel gives a quick and high return. And in times of crisis,

vocational training of personnel becomes of particular importance and becomes an integral part of the successful functioning of any organization.

World practice convincingly testifies that in the conditions of intensification of competition in commodity markets it is necessary to maintain and expand the incentives of the personnel to achieve high production and market indicators of the activity of the enterprise, which ultimately determines the success in the conditions of competition [76].

The most common classification of factors influencing competitiveness is the classification from the position of belonging to the enterprise: internal and external.

External factors - these are factors influence on which from the enterprise is impossible or limited and include:

- the general political situation in the country;
- foreign political and economic ties with other states;
- regulatory role of the state;
- export-import relations of the state;
- presence of competitors in this field, sphere of activity;
- presence (or absence) of sources of raw materials in the country;
- the general level of technology and technology in the country;
- the existing system of management of industry;
- civil and labor legislation;
- presence (or absence) of antimonopoly legislation;
- other factors of influence.

In modern conditions one of the external factors influencing the work of enterprises in the pharmaceutical industry can be an unstable political situation in the country. Unfortunately, pharmaceutical companies are forced to adjust their activities, taking into account the political conditions that are taking place in society [49, p. 166].

It should be noted that changes in the financial and economic sphere of life also contribute to the organization of of enterprises. So, for example, tax law is formed to the fullest are good conditions for investment and business activity. Some instability may cause exchange rate risks associated with sharp currency fluctuations, given that raw

materials for the manufacture of medicinal products are often procured abroad [49, p. 167].

Another factor ensuring the competitiveness of the pharmaceutical industry is the presence in the national economy of competitive siblings and supporting industries that provide firms with auxiliary equipment, necessary materials, semi-finished products, completing products and information resources, is an indispensable condition for the establishment and maintenance of competitive advantages. Affiliated industries can themselves act as competitors that put on the market goods-substitutes, new materials, technologies, as well as innovators or simulators of innovation, stimulants of scientific and technological progress. In this case, the supporters are chemical industry, precision engineering, medical and instrumental industry, agricultural production.

An important factor of success can also be considered the external financing and efficiency of operations of market players. Market financing is one of the most important issues that determines its stability and prospects of development. The source of financing for pharmaceutical companies may be the purse of the final consumer, but it is extremely important to take into account the borderline of the elasticity of purchasing power and the actual economic situation in the country. Another important source of financing is investment, primarily infrastructure. Here the main tools are state funding, patient participation in treatment, voluntary health insurance [35, p. 150].

At present, leading companies are upgrading production sites, bringing them in line with GMP requirements. The presence of a national GMP certificate allows pharmacists to slowly, but confidently, master overseas markets. The need for this is great, since the pharmaceutical market is becoming tight. For example, currently in the Ukrainian market there are 460 manufacturers, including 300 foreign and 160 domestic producers. The so-called duplication of the nomenclature contributes to the acceleration of competition to a large extent. It is not uncommon when several domestic producers produce several variants of the same molecule [35, p. 146].

An excellent example of ensuring the high competitiveness of pharmaceutical enterprises can be the EU. Their main features are:

- application by European manufacturers of medical products of modern business models of development using the advantages of internationalization of production and capital when opening new productions in the countries with a positive dynamics of demand for pharmaceutical products;

- deepening of intra-regional and cross-border partnership, in particular within the framework of cooperative unions, strategic alliances, as well as full integration - mergers and acquisitions;

- diversification of the products portfolio of pharmaceutical companies, with the shifting of emphasis on the production of generics, which is connected with the current trend of ending the majority of patents [71, p. 55].

The following factors, whose impact on competitiveness is entirely or partly dependent on the enterprise itself, are internal factors. These include:

- systems and methods of management of the company;

- the level of technology and technology at the enterprise;

- marketing support;

- system of development and introduction of innovations;

- level of organization of production;

The high efficiency of operations of pharmaceutical companies is the knowledge and rational use of management and marketing approaches, the productivity of the activities of medical representatives (an important intermediate link between the company itself and the end user of its products) and features of contact with the end user. The effectiveness of the marketing tools used depends on the magnitude of the investment (taking into account their return, that is, the profitability of the business), segmentation, positioning, the presence of unique trade offers. [35, p. 151].

Also, the factors influencing competitiveness in relation to the availability of types of competitive advantages can be divided into:

- material - factors that are based on "benefits in resources";

- virtual - factors that are based on " benefits in skills ".

The level of resource benefits can be determined by:

- access to raw materials, energy, components;

- staffing and qualifications of employees;

- structure of own and invested financial means;

- availability of a system of scientific and technical, industrial, commercial cooperation.

Benefits in skills are conditioned by the efficiency of the work of all functional units, the initiative of employees, the presence of know-how in research and design, etc.

For the effective functioning of the enterprise it is necessary to work continuously on factors of increasing competitiveness. First of all, the management system must be able to implement in practice the strategy of competition, that is to substantiate, offer and implement strategic plans in everyday practice. At the same time, it is necessary to choose the right place, time, key lines of action that will provide competitive advantages. These key areas include rationalization of relations with suppliers, the development of competitive products, the effective promotion of it on the market, increasing the competitiveness of the city sales of products and services, the development of organizational structures in the conditions of competition, etc. They are particularly important in the complication of management and raising the level of risk in decision-making. In addition, with the development of the theory and methodology of this problem, the question of equipping marketing managers and managers with tools for preparing and deciding on interaction with competitors is explored. The prerequisites for improving the quality of such solutions are created.

Companies can use the frameworks and models depending upon the objective of competitiveness intervention and category of a company.

Selection of right kind of frameworks and models is very important for success of competitiveness intervention of a company. The selection of the relevant framework or model depends on company's capability and its situation on the market.

Results of the review are summarized on a graphical matrix (Table 1.2) on four stages of a company's capability viz., meet the budget, predict future, think strategically and create the future. These stages have been used to denote the axis of company's capabilities [21, p. 55].

Table 1.2

A comparison among select framework and models used to implement a successful competitive strategy

S. No.	Model/ Framework	Main Focus of the Model/ Framework	Usage	Complexity	Stage of that can use it
1.	EVA	Financial – Cost of capital, profitability	H	L	S/G
2.	Value Pyramid	Productivity	M	L	S/G
3.	TSR	Value creation by Cash value addition. Economic growth	L	L to M	G
4.	VCI	Market Value addition through Value drivers, Accounting Value	L	M	G
5.	Value Curve	Positioning by analyzing the Margin and Technology/ Marketing Complexity	L - M	L	S/G
6.	EFQM	Leadership (assets). Process & Performance	M	L	G
7.	CMM & P-CMM	Process maturity levels	M - H	L to M	S
8.	APP	Co. internal assets. Process and performance	L - M	M to H	G
9.	IVM	Corporate value creation through Decision, Incentive & Communication based	L	M	G
10	BSC	Financial, Internal Business Process, Learning & Growth and Customers	L to M	M	G

Notations: H: High, M: Medium, L: Low, S: Survival, G. Growth

Source: [21, p. 55]

Notes: APP stands for Assets-Processes-Performance Framework, EFQM is European Foundation of Quality Model, BSC is Balanced Scorecard, IVM is Integrated Value Management, TSR is Total Shareholder's Return, VC is Value Curve, EVA is Economic Value Added, VP is Value Pyramid, CMM is Capability Maturity Model and RoI is Returns on Investments.

The graphic matrix provides an example of tools that can help professionals in choosing the right structure and / or model. From the research, it follows that the simplest financial indicators are the most popular to assess the company's performance. However, the use of more sophisticated frameworks and models, which naturally requires more attention and dedication, can help to maintain the company's competitiveness. For companies in crisis or survival, focusing on balance ratios and improving operational performance; for companies that are relatively stable or in the phase of growth, more sophisticated systems and models can be used to assess their competitiveness [21, p. 56].

Thus, it can be concluded that since the pharmaceutical industry has a fairly complex structure and its competitor environment is formed under the influence of various factors (both internal and external), awareness of the factors ensuring the

competitiveness of the pharmaceutical industry is an important requirement for the formation of a successful competitive strategy.

1.3. Methodological approaches of evaluation the competitiveness of the enterprise in the foreign market

The efficiency of the functioning of enterprises in modern economic conditions depends directly on the process of assessing the competitiveness of the enterprise, which is becoming an independent part of analytical work. The results of such calculations can be used when adopting strategic management decisions, in planning innovative, technical and product policies, as well as in order to determine the competitiveness reserves and to strengthen the competitive position of the enterprise in a specific market.

The methods for evaluation the competitiveness of a company vary from relatively simple ones, based on insufficient funding and limited information, to complex, high-cost enterprises and high professionalism of researching staff of competitiveness.

Different methods are used to assess the competitiveness of the enterprise (Table 1.3).

Table 1.3

Methods of evaluation of the enterprise competitiveness

Type	Methods of assessing the competitiveness of the enterprise
by way of evaluation	qualitative
	quantitative
by the form of of result presentation	economic and mathematical methods; [2, c. 144 a) parametric or analog method; b) calculation of competitiveness on the basis of value added; c) method of polycrystalline optimization.
	graphic methods a) a method based on the study of the life cycle theory; b) construction of a polygon of competitiveness; c) research of competitiveness on the basis of Harrington function (desirable function); d) the method of studying the curve of experience; e) method of drawing a map of strategic groups.

Continuing of the table 1.3

Type	Methods of assessing the competitiveness of the enterprise
by the form of of result presentation	descriptive methods a) matrix or portfolio methods; b) Porter's factor models; c) application of the concept of marketing interaction.
	mixed techniques a) competitiveness research on the basis of functional-cost analysis; b) Anosoff "product-market" model.
By taking into account aspects of the enterprise functioning	Special
	complex
By opportunity for strategic decision making	current
	strategic
By the direction of the information base formation	creatial
	expert
depending on the object of evaluation	the competitiveness of the staff
	the competitiveness of products
	the competitiveness of the organization
depending on the specific purpose of the assessment	positioning in the group
	determine the dynamics of positions in a group
	determination of competitive advantage

Source: compiled by the author based on [23, p. 101]; [44, p. 243]; [65]

The parametric method is the most commonly used in economic and mathematical methods, and is used to determine the competitiveness of different categories, including goods, a separate subdivision of an enterprise or a firm as a whole. The method is based on determining the main parameters of the investigated object, determining the integral indicator, which reflects the level of competitiveness compared with the strongest competitor. The main disadvantage of this method is the limited ability of the forecasted level of competitiveness, since the generalized indicator characterizes the existing position of the enterprise versus its competitor [97, p. 159].

The method of analysis of competitiveness on the basis of the norm of use value involves the definition of the parameters of the enterprise separately in the technical, environmental, socio-psychological and legal blocks, calculation of the coefficients of the norm of consumer value for each of the blocks and the ratio of total consumer value. It has the same disadvantage as the previous technique. The use of this method involves obtaining a qualitative result, which makes it possible to assess in detail the real competitiveness in this market now and find crisis points and group of factors [5, p. 145].

Graphic methods of competitive analysis are distinguished by the visual presentation of information.

Particular role in the analysis of export competitiveness is played by the time factor. It takes into account the so-called theory of the "life cycle" of the product. The concept of a life cycle is a model of market reaction (on the actions used by the enterprise) in time. It includes: sales, cost coverage, profit. As a single variable, it involves time.

The management of the company should predict the change of life cycle phases and, accordingly, orient the enterprise strategy. The main disadvantages of the method, according to M. L. McDonald and Brown, is that the life cycle does not include external factors (technology, economic conditions, and the position of competitors). Accelerate the process of innovation and technological progress reducing life cycle curve, and therefore the company should be able to rebuild its operations quickly in connection with these measurements [97, p. 159].

The graphic research methods also include an analysis of competitiveness, based on the construction of a polygon of competitiveness. It can serve as the basis for constructing an imitative model of market equilibrium in the terms of competitive rivalry of commodity producers.

The market share is an important indicator, the size of which must be determined and predicted. This indicator is the key to assessing the company's competitive position. Since an entity with a high market share index implements and sells more products, the cost per unit of a product of this enterprise is lower compared to its competitors. Positions of the company with a larger market share in the competition are always better [18, p. 148].

The company can achieve competitive advantages and strengthen its position by:

- ensuring lower costs for production and sales of goods;
- ensuring the product's indispensability through differentiation.

The area of the pyramid is formed by six vectors-rays, which determine the internal competitiveness of the enterprise, which can be calculated in this way:

$$= - \cdot \sin \cdot (\cdot + \cdot + \cdots + \cdot), \quad (1.1)$$

where:

- A - the area of the pyramid (polygon of product competitiveness);
- sinα- the angle between the vectors in the polygon (area), since the vectors in the model are six, the angle will be 60?.

Each vector in its boundary value represents the radius of the circle, which corresponds to the maximum value (ideal variant) of the estimated figure (Figure 1.2).

Using the parameters of the internal competitiveness of the enterprise A and the resultant parameter H, the final formula for assessing the competitiveness of the enterprise will be as follows:

$$= - \cdot A \cdot H , \qquad (1.2)$$

where - evaluation the competitiveness of an industrial enterprise.

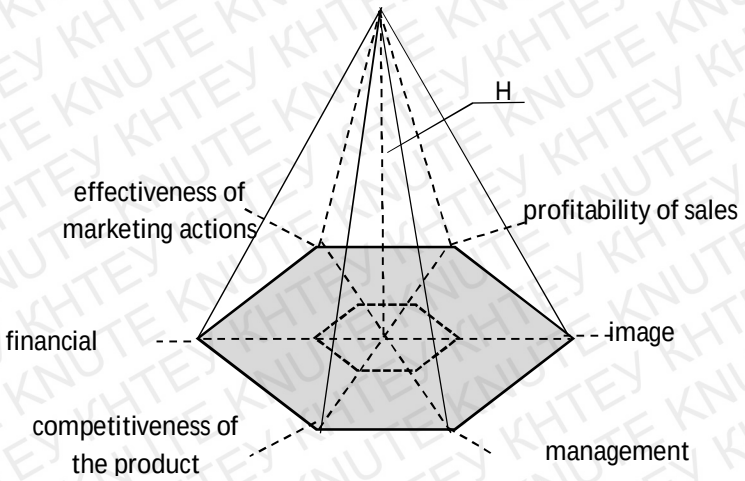


Figure 1.2. Graphic interpretation of the model of enterprise competitiveness evaluation

Source: compiled by the author based on [18, p. 148]

As noted earlier, factors taken into account in the model and its structure may be corrected in the process of perfection of the model. The universal nature of the model allows to vary the range of evaluated parameters, based on the information capabilities, the level of skill of the attracted experts, the degree of specialization of production.

This methodological approach makes it possible to analyze the impact of individual factors that ensure the competitive position of the company on the market, as well as assess the possible consequences of their change in the future [18, p. 149].

The results of the Boston Consulting Group (BCG), conducted in many industries, in the application of production costs and product prices, depending on the experience gained, have revealed the dynamics of costs and their impact on prices, especially in emerging markets. In many branches of the industry, BCG has found the pattern: at each doubling of the volume of production of goods, production costs are reduced by 20-40% depending on the industry [38, p. 117].

The assessment is to analyze a matrix constructed on the principle of a coordinate system (Figure 1.3):

- horizontally - the growth rate / decrease in the number of sales on a linear scale;
- vertically - the relative share of the totality of goods / services on the market.

The most competitive are enterprises that occupy a significant market share, are "stars" [32, p. 286].

Market share			
	High	CASH COWS Verdict: Milk them	STARS Verdict:Invest
	Low	DOGS Verdict: Liquidate	QUESTION MARKS Verdict:A tough decision
		Low	High
		Market gtowth	

Figure 1.3. Graphic representation of the BCG matrix

Source: compiled by the author based on [38, p. 117]

The advantage of this method is that if there is reliable information about the volume of sales, the method allows to provide a high representativeness of the assessment.

The main drawbacks of the concept are that it is difficult to apply this concept at the individual level of goods and brands due to the high share of total costs. Also, the limitation of the concept is to compare the levels of costs between competing firms

because of the inaccessibility of information, the difficulty in assessing costs on a real scale, because the level of inflation is not always within certain limits [38, p. 117].

One of the newest and most effective methods of analysis of the competitive position of the enterprise is the method of drawing up a map of strategic groups. This analytical tool is useful when there are several distinct groups of competitors in the industry, each of which is different from other positions on the market and has an individual approach to buyers.

The strategic group consists of rivals with the same market position. The map of the strategic group is formed by marking the market position of the strategic sector groups in a two-dimensional coordinate system, where the axes can be the following changes:

- price / quality and product range (high, medium, low);
- geographic area of activity (local, regional, national, global);
- the degree of vertical integration (missing, partial, full);
- nomenclature of goods (wide, narrow);
- use of distribution channels (one, several, all).

This technique allows to clearly demonstrate the position of the industry as a whole and each of the competing enterprises separately. The main strategic importance of this methodology is that by targeting the map of strategic groups, an enterprise can identify weaknesses of their own business compared to the competition, take strategic and tactical steps to improve its competitive position, consequently, increase its competitiveness.

Significant interest is caused by so-called descriptive methods, which are most widely used in foreign practice. These techniques include matrix or portfolio methods, in particular the matrix of the Boston Consulting Group (BCG); Shell matrix; matrix of strategic alternatives, matrix of competitive advantage; the matrix of Hassey etc. [97, p.160].

The Hinterhuber-Matrix is used to assess the firm's strategic core and the core of competence, that is, the sum of all knowledge, skills, technologies that provide a competitive advantage to the firm. The limitation of this technique is that an incomplete set of parameters is used to compile the matrix, characterizing the activities of various

divisions of the enterprise regarding competitor (the perfection of technology use, marketing service, management), but which are not taken into account in the calculation of environmental factors, and therefore the enterprise is not in the ability to develop a system of measures to improve the effectiveness of interaction with the external environment.

McKinsey matrix (Figure 1.4) is the development of the model described above. Defining in the model are attractiveness of the market and benefits of competition. The attractiveness of the market consists of market characteristics, market quality, supply basics and other conditions. Benefits in competition are determined by the relative position on the market, product potential, research potential, as well as the qualifications of managers and employees [44, p. 121].

	High	**Protect Position** • Invest to grow at maximum digestible rate • Concentrate effort on maintaining strength	**Invest to Build** • Challenge for leadership • Build selectively on strengths • Reinforce vulnerable areas	**Build selectively** • Specialize around limited strengths • Seek ways to overcome weaknesses • Withdraw if indications of sustainable growth are lacking
Market attractiveness	Medium	**Build Selectively** • Invest heavily in most attractive segments • Build up ability to counter competition • Emphasize profitability by raising productivity	**Selectivity:Manage for Earnings** • Protect existing program • Contcentrate investments in segments where profitability is good and risks are relatively low	**Limited Expantsion or Harvesr** • Look for ways to expand without high risk; otherwise minimize investments and eationalize operations
	Low	**Protect and Refocus** • Manage for current earnings • Concentrate on attractive segments • Defend strenths	**Manage for Earnings** • Protect position in most profitable segment • Upgrade product line • Minimize investment	**Divest** • Sell at time that will maximisze cash value • Cut fixed costs and avoid investment meanwhile
		Strong	*Medium*	*Weak*
		Competitive strength og business unit		

Figure 1.4. Graphic representation of the McKinsey matrix

Source: compiled by the author

This matrix allows to determine the state of the given product in the market relative to other competitors, and also allows to develop strategic recommendations for raising the level of the goods competitiveness.

The disadvantages of the model include the following:

1. Determining the factors of the model requires a large amount of information, which is often insufficient;

2. It is difficult to quantify qualitative characteristics;

3. The model is static and displays only the specified time interval.

The PIMS-Model (Rofit Impact of Market Strategies) is an attempt to summarize all the variables that affect the competitiveness of companies with similar competitive positions. This model revealed the link between the competitive strategy and the effectiveness of the enterprise, which can help managers in assessing the impact of strategic decisions on the effectiveness of the company. The main drawback of the project, according to M. Macdonald, the main drawback of the project lies in the mechanical application of general formulas for the solution of specific tasks.

The LOTS analysis is a later analogue of the PIMS project developed by the Swedish specialists. The essence of the LOTS model lies in the fact that an enterprise, state institution or other person must strive and be able to adapt its activities to the requirements of consumers. This method involves a detailed, consistent discussion of problems of varying level of complexity at different levels of the enterprise - from the corporate mission of the company as a whole to an individual project [48, p. 44].

The GAP analysis technique aims to bridge the gap between the desired and predicted activity. GAP-analysis was conducted for each individual enterprise separately, based on its short-term and long-term goals, the forecast of the dynamics of the rate of return, the level of investment, resources for activities. The main disadvantage of the methodology is that during the development of forecasts, the influence of external factors on the forecasted indicators is not taken into account, which means that the attempts of the company to eliminate the gap between real and predictive indicators may not lead to the desired result.

The concept of marketing interaction was proposed by the Swedish scientists in the 80's. The progressiveness of this concept is confirmed by the fact that products become more and more standardized, which leads to the formation of repetitive marketing decisions, so the only way to keep the consumer is to individualize the relationship with

him, which is possible based on the development of long-term partner interaction. The disadvantage of the concept is the greater uncertainty associated with the human factor, as well as the advantage of using qualitative indicators that characterize the process of interaction [64, p. 174].

The method of beechmarking of competitiveness appeared in the 70's in the United States, becoming a science. Beechmarketing is a method of analyzing the benefits and evaluating the competitive advantages of partners and competitors in a particular or related industry and the purposes of studying and using the best one. At this time there are many types of benchmarketing (internal, global, strategic, butchmarking process). The main drawback of the methodology is the significant difficulties in gathering information, determining the level of its probability and practical application in the analysis process.

An enormous contribution to the study of competitiveness was introduced by Michael Porter. Porter's Matrix (Figure 1.5) is built on the basis of competitive strategy concept: the main focus of the company is not only to meet the needs of customers, but also competing forces of the market [44, p. 121].

Based on factors that are critical to the competitive position of the company's products, Porter developed a matrix of competition in which strategies can be written as:

1. Cost Leadership: all actions and decisions of the company should be aimed at reducing costs.

2. Differentiation: the product of the firm should be different from the goods of competitors and have something unique from the point of view of consumers.

3. Focus: processing one or several segments of the market and achieving there leadership in costs.

	Uniqueness perceived by the Customer	**Low Cost Position**
Industrywide	DIFFERENTIATION	COST LEADERSHIP

Particular Segment Only	FOCUS

Figure 1.5. Graphic representation of the Porter's Generic Strategy Framework

Source: compiled by the author based on [44, p. 124].

Disadvantages of the Concept of Competitive Strategy:

1. This concept implies the presence of a special position relative to competitors, unknown ways to achieve these positions.

2. Concentration on one of these strategies may be dangerous in case of rapid changes of market conditions [44, p. 125].

Analytical methods include:

• Rosenberg Model;

• Calculation of the integral indicator of competitiveness;

• Competitive assessment based on sales;

• Ideal point model;

• Grebnev's method;

• Competitive Price Index.

The Rosenberg model is based on the fact that consumers value goods in terms of their suitability to meet their needs.

It is expressed by the formula:

$$= \quad , \qquad (1.3)$$

where:

- - subjective suitability of the goods (relation to the product);
- - importance of the motive for the consumer;
- - a subjective assessment of the suitability of a product to satisfy the motive i.

In terms of work with the product, the use of this model is associated with a lot of problems. Motives that are important for a product are often difficult to determine; an assessment is determined by the subjective views of experts.

The positive side of this method is that each product can be matched by any number, which greatly facilitates the comparison of their competitiveness: the greater the number, the more competitive goods.

When calculating the integral indicator of competitiveness, individual indicators of competitiveness of a commodity are determined by their comparison with the basic, benchmarks or indicators for the competing products:

$$= —, \quad (1.4)$$

where:

- - competitiveness indicator for the i-th parameter;
- - the value of the i-th parameter of the product;
- - the value of the i-th parameter for the reference product.

An integral indicator of competitiveness is calculated (consolidated index of competitiveness):

$$= \sum \quad , \quad (1.5)$$

where:

- n - number of estimated parameters;
- - the value of the i-th parameter.

Obviously, the closer K comes to 1 , the closer this product corresponds to the reference value. It is possible to form a hypothetically perfect product, giving it the best parameters of the goods of this group. Then K characterizes the level of deviation of the estimated product from this ideal one [39, p. 85].

When assessing competitiveness of a particular product, it can be compared to similar competitor products, for which a similar comparison with the reference standart was also conducted, and it can be concluded on their comparative competitiveness. When such a comparison is carried out only with some competitor product, then K <1 means that the analyzed goods are inferior to the sample in terms of competitiveness; at K> 1 exceeds. With equal competitiveness K = 1.

The peculiarity of the model with the ideal point lies in the fact that it introduced an additional component - the ideal value of the product characteristic:

$$= \quad k\left| \quad - \quad \right| , \qquad (1.6)$$

where:

- - an estimate by consumers of the brand j;
- *Wk*- ithe importance of the characteristic up to (k = 1, n);
- - evaluation of the characteristics of the brand j from the of consumer‘s point of view;
- - the ideal value of the characteristic k of the brand j from the of consumer‘s point of view.

The advantages of this method are that it gives an idea of the ideal, from the consumer's point of view, product.

Competitiveness of a product is determined by the magnitude of the deviation of this estimate from the ideal value.

In assessing competitiveness based on the level of sales, it is assumed that the level of competitiveness is a relative characteristic of the product, expressing the degree of its advantages in this market (of the analogue product). In this case, the criterion of competitiveness can be the relative share of sales of the product compared with the competitor:

$$= \frac{\quad}{\quad}, \qquad (1.7)$$

where:

- - volume of sales of the given product for a certain period;
- is the volume of sales of a competitor for the same period.

Negative prerequisite for this method is that the basis of the assessment lies in the expert method, that is, the assessment is determined by the subjective views of experts [39, p. 86].

The positive side of this method is that this method takes into account the influence of various factors: technical-economic, commercial, regulatory and legal.

The algorithm for calculating the competitiveness of Grebnev's product includes the following stages:

1. Development on the basis of knowledge of the market and requirements for the product, a set of indicators of its quality.
2. To select from this set of indicators the most important one (quality parameters).
3. Obtain quantitative characteristics of the significance (ai) of each of the i-th parameter by interviewing experts.
4. Formation of a reference model, that is, a sample of goods in the context of selected parameters from the standpoint of buyers.
5. Development of quantitative assessments of the same quality parameters for their product and product of competitors.
6. Estimation of the quality level or consumer effect of its product and competitor‘s goods by formulas [22, p. 12].

$$K = \sum \cdot —, \quad (1.8)$$

$$K = \sum \cdot —, \quad (1.9)$$

where:

- - a quantitative estimate of the i-th quality parameter, according to its product and by product of a competitor;
- - a quantitative estimation of the i-th parameter of the quality of the reference standard from the position of the indicator.

1. Calculation of the consumption price of its goods and determination of the consumption price of the competitor's goods, taking into account the retail price and operating costs during use of the product.

2. Calculation of the integral indicator of the competitiveness of its goods by the formula:

$$= \frac{\_}{\_} = \frac{\cdot}{\cdot}, \quad (1.10)$$

If the product is to be exported, then it is necessary to check the quality parameters chosen to comply with the international or national standards of the intended importer.

If at least one of the normative parameters does not meet the standard, such a discrepancy should be eliminated.

$$= \frac{\cdot}{\cdot} \cdot \quad , \qquad (1.11)$$

where:

- - a set of all indicators;
- = 1, if all the indicators correspond to the standard;
- = 0 if at least one of the indicators does not meet the standard.

It is believed that if the coefficient of competitiveness is less than one, then the company doesn't offers competitive goods on the market, and it is necessary to change its technical and economic characteristics. Moreover, it is considered that the excess of this value by 10-20% is insignificant, for obtaining successful results on the market. However, if this excess is 30-50%, then it is believed that the company is relatively stable. The excess of 50-70% demonstrates a positive and forward-looking policy on the market.

Competitive Price Index (IPC) is a normalized average price relative to a given class of goods or services in a given region, during a given interval of time.

To calculate the price index, first, all pricing product pairs have to be listed—intersections our and our competitor's products—with an available price and quantity.

Then, to calculate the price index of the product for each potential competitor, it is needed to devide an available price of the product of each competitor on the price, which is considered to be the lowest among other competitors.

$$= \frac{}{}, \qquad (1.12)$$

where:

- – newly formed price of the competitors for the IPC calculation;
- – an available price of the competitors;
- - the price that is considered to be the lowest among other competitors.

After that all new prices of each product have to be multiplied on their sales volume on the market, and than have to be summed up within the products group of each the competitor.

$$= \sum Pcn \cdot Qc, \qquad (1.13)$$

where:

- - sales volume of each product.

To calculate the Competitive Price Index for each company, has to be devided on the sales volume of each competitor.

$$= \frac{}{\Sigma}, \qquad (1.14)$$

where:

- Σ - sales volume of ech competitor.

As a result the more IPC is closer to 1, the more competitive is the enterprise among other competitors.

After the calculation of the Competitive Price Index it should be compared with the volume of sales of products, which leads to the following conclusions:

- IPC↓ and Q↑ - buyers are focused on the low price and quality; buyers are sensitive to price changes;
- IPC↓ and Q↓ - the enterprise can improve the quality and increase the price, resulting in an increase in sales;
- IPC↑ and Q↓ - buyers are sensitive to quality, because at a high price they buy a small amount of products.

As a result it can be concluded that different methods of assessing the competitiveness of an enterprise use different groups of factors, mainly detected by expert estimates. Using only one method does not give a complete picture of the level of competitiveness of the enterprise. Therefore, when assessing the competitiveness of goods and enterprises, it is necessary to use a complex method.

CONCLUSIONS TO PART 1

In conditions of globalization, the success of domestic enterprises in foreign markets is determined by the competitiveness of their products. Competitiveness is one of the main concepts that is actively used in the theory and practice of economic analysis, For its characteristics, the concept of comparative costs (D. Ricardo), comparative advantages (E. Heckscher, B. Olin), comparison of competitive advantages, factors of management and productivity of the use of resources (M. Porter), the competitive status of the firm (I. Ansoff).

Different scholars interpret the term "competitiveness" in different ways and determine different tipes of it, based on their points of view.

The competitiveness of the product reflects its ability to fully respond to customer inquiries in comparison with similar products presented on the market. It is determined by the competitive advantages. The competitiveness of the industry is determined by the availability of technical, economic and organizational conditions for creation, production and of high quality products that meet the requirements of specific groups of consumers. Competitiveness of the industry - is the ability not only to win the competition, but also to take an active part in it.

The concept of competitiveness is directly related to the term "competitive organization", which can be interpreted as the superiority of the company's goods (services) over analogues in specific market segments over a certain period of time on the potential to develop, produce and market competitive products (services) in the future, achieved without compromising the financial position of the organization.

One of the criteria that determines the company's success in the global market is its international competitiveness. International competitiveness should be understood as the achievement of an enterprise's competitive advantage in rivalry in the international market.

The pharmaceutical industry is currently one of the most promising sectors of the economy. It is one of the most advanced in terms of capital intensity, stable growth rate, and social significance for the global economy. The level of competitiveness of the pharmaceutical enterprise characterizes the investment attractiveness and provides an

opportunity to attract foreign investment, as well as creates preconditions for the development of individual enterprises and scientific and technological progress.

The set of factors that affect and ensure the competitiveness of the enterprise are so significant and peculiar that there is no single methodology for collecting data on their processing and identification for the adoption of appropriate decisions.

The efficiency of the functioning of enterprises in modern economic conditions depends directly on the process of assessing the competitiveness of the enterprise. The methods for evaluation the competitiveness of a company vary from relatively simple ones, based on insufficient funding and limited information, to complex, high-cost enterprises and high professionalism of researching staff of competitiveness. They are: economic and mathematical methods, graphic methods, descriptive methods and mixed techniques.

The main disadvantage of the considered methods is their limitedness: either one group of factors influencing the competitiveness of the enterprise is assessed and the conclusion is drawn on the basis of the data obtained about the level of competitiveness of the whole enterprise, or the method is very complex and time-consuming for practical use.

PART 2. THE RESEARCH OF COMPETITIVENESS OF PJSC "MONPHARM" IN THE MARKET OF PHARMACEUTICAL PRODUCTS

2.1. Analysis of financial and economic activity of PJSC "MONPHARM"

PJSC "MONPHARM" is the leading pharmaceutical company in Cherkassy region, which is confirmed by certificates of honor of the Pharmaceutical Association of Ukraine and the results of the national rating "Pharmexpert", according to which PJSC "MONPHARM in terms of production ranked 13th among 162 domestic pharmaceutical manufacturers. At present, the products of the "MONPHARM plant are in every pharmacy in our country [59].

In order to assess the prospects for enterprise development and the ability to compete in the international market, the dynamics of key indicators based on financial reporting should be evaluated.

Dynamics and composition of the assets of the enterprise (Appendix A; C; D), show that non-current assets have grown. In spite of the fact that in 2016 the number of current assets decreased compared to the positive dynamics of 2013-2015, in 2017 the company achieved a 11% increase compared to 2016 (due to the growth of fixed assets and long-term financial investments).

As far as all assets are concerned, there is an unstable change of about 10-20% annually, which suggests a similar changes in fixed assets, inventories and finished products. However, in 2016, the deceleration of growth rates by 10% is observed due to a decrease in the level of accounts receivable for advances paid with a budget of 92,2% and a decrease in the amount of money, its equivalents and bank accounts by 11%.

With regard to equity (Appendix E; F), there is also an increase of 10% to 44% during 2013-2016. It can be also noticed a steady decline in short-term liabilities and unstable dynamics of long-term liabilities.

The positive point is that considering the structure of the enterprise's liability, a steady annual increase in the share of equity in the liability structure from 35% to 56% is noticeable. In turn, there is a decrease in the share of short-term and long-term

liabilities. The share of equity is almost twice the share of long-term liabilities, but almost three-fold short-term liabilities.

In general, the picture of the financial condition of the company is quite positive, but for its detailed characteristics it is also necessary to analyze the indicators of liquidity, solvency, business activity and profitability of the enterprise.

Liquidity ratios measure the company's ability to repay its short-term obligations when they fall due (Table 2.1). They show how many times the short-term debt is covered by cash and liquid assets.

Table 2.1

Dynamics of the liquidity ratios of PJSC "MONPHARM" in 2013-2017

Indicator	31.12.2013	31.12.2014	31.12.2015	31.12.2016	31.12.2017
Cash ratio	0,01	0,01	0,08	0,22	0,28
Current ratio	1,95	1,95	2,00	2,47	4,07
Quick ratio	1,19	1,19	1,22	1,27	2,29
Working capital, thousand UAH	24764	24764	30393	47302	70926

Source: compiled by the author based on the calculations and on Appendix A; C; E

The first indicator, which is a measure of a company's liquidity and shows how much it can service debt and cover short-term liabilities, is cash ratio.

In the case of PJSC "MONPHARM" there is a positive growth of the value of this indicator. Starting from 2016, the company has crossed the minimum accepted value (0.2), which continues to grow, indicating the increasing opportunity of the enterprise to pay off current (short-term) liabilities.

The current ratio indicates a company's ability to meet short-term debt obligations. According to the table, the indicator for 2013-2016 is within the range (1-3), which means that this company has enough resources to pay its debt over the next 12 months, which will attract potential investors. It also indicates the high efficiency of a company's operating cycle or its ability to turn its product into cash.

In 2017 the current ratio is too high (more than 3). The company may not be using its current assets or its short-term financing facilities efficiently. This may also indicate problems in working capital management.

The next important indicator is the quick ratio. In our case, each year, this indicator only increases and exceeds the value of 1, so we can say that the company strengthens its position. It tells creditors how much of the company's short-term debt can be met by selling all of the company's liquid assets at very short notice.

Working capital is the amount by which the value of a company's current assets exceeds its current liabilities. In our case, we have a positive value, which indicates that a company is able to pay off its short-term liabilities almost immediately. It can be noted that the value of this indicator is constantly increasing. This suggests that this company has a lot of working capital and will be more successful as it can expand and improve their operations.

Profitability ratios (Table 2.2) measure a company’s ability to generate earnings relative to sales, assets and equity.

Table 2.2

Analysis of the profitability ratios of PJSC "MONPHARM" in 2013-2017

Indicator	2013	2014	2015	2016	2017
Return on equity	0,09	0,11	0,39	0,33	0,18
Return on assets	0,04	0,04	0,16	0,17	0,10
Return on investment	0,48	0,45	0,78	0,75	0,76
Return on debt	0,10	0,10	0,45	0,54	0,35
Return on revenue	0,05	0,05	0,17	0,17	0,12
Operating operating expense	0,26	0,30	0,38	0,39	0,31

Source: compiled by the author based on the calculations and on Appendix B; G

Return on equity (ROE) is an indicator indicating how well the equity is used, that is, how much profit was generated for each unit of equity.

In the period from 2013 to 2015 it was possible to follow the growth of the value of this indicator that shows the relative increase in net profit, generated by the same amount of capital. However, the trend for a stable growth of the coefficient and falling

of its value from 2016 to 2017 does not depend on the same dynamics of net profit or equity. In the case of PJSC "MONPHARM", the growth of long-term liabilities from 2013 to 2015 also causes an increase in the indicator, because it means that the company uses credit capital instead of its own as a source of financing.

Return on assets (ROA) - shows the effectiveness of using company's assets to generate profits. Together with the table, the value of the indicator increases (although there is a slight drop in 2017, due to a decrease in net profit, indicating an effective management process, since the rate of return on assets is formed under the influence of all the company's activities.

ROI is a financial factor that shows the level of profitability or loss-making of a business, depending on the amount made in this business investment. According to calculations over 5 years the value of this indicator increased. At present, return on investment unit is 76%, which is 28% more than 5 years ago indicates an increase in the profitability of business and its attractiveness.

The next important indicator is return on debt. The results of the calculations show that the use of borrowed funds contributes to 10% of profitability in 2013 and increases to 54% in 2016, although there is a certain decrease in the value of the indicator by 19% in 2017, which arose as a result of a decrease in the amount of net profit and an increase in long-term liabilities.

Return on revenue (ROR) is a measure of company profitability based on net income and revenue. Despite the fact that the profitability of the indicator in 2013 was only 5% and sometimes increased by 12%, we can say that costs are being handled efficiently, taking into account the positive dynamics. Although there is a 5% drop in the indicator in 2017, indicating that costs are rising.

The last indicator, which characterizes the profitability of the enterprise, is the Operating operating expense (OER). During the period from 2013 to 2016, its constant growth was observed, which means that the property was being managed efficiently and was more profitable for the investor. However, a decrease in profits in 2017 also negatively affected the value of this ratio.

Other ratios that are used to assess the financial stability of the company are (Table 2.3): equity ratio, debt ratio, capitalization ratio, and accountable payable to accounts receivable ratio.

Table 2.3

Analysis of the financial stability ratios of PJSC "MONPHARM" in 2013-2017

Indicator	31.12.2013	31.12.2014	31.12.2015	31.12.2016	31.12.2017
Equity ratio	0,35	0,35	0,44	0,56	0,56
Debt ratio	0,65	0,65	0,56	0,44	0,44
Capitalization ratio	0,54	0,52	0,43	0,34	0,35
Accounts payable-to-accounts receiveble ratio	0,80	0,83	0,91	0,43	0,37

Source: compiled by the author based on the calculations and on Appendix A; C; E

The equity ratio communicates the shareholder's funds to total assets in addition to indicating the long-term or prospective solvency position of the business.

Starting in 2013 and up to now, the value of the indicator has gradually grown and has approached the optimal value (0,5), indicating that the company has to pay less interest, thus having more free cash on hand for future expansions, growth, and dividends.

The debt ratio shows how much the company relies on debt to finance assets. In our case, in the period from 2013 to 2014, the company was within the maximum permissible limits (0,6-0,7), which indicated a high risk associated with the firm's operation. Subsequently, the indicator decreased to 0,44 in 2017 (the optimal value is less than 0,5), indicating conservative financing with the opportunity to borrow in the future at no significant risk.

The next ratio that helps in the assessment of risk is a capitalization ratio. It tells about the extent to which the company is using its equity to support its operations and growth. As can be seen from the table, Debt ratio has a similar dynamics with the Capitalization ratio. For the period from 2013 to 2014, the indicator exceeded the optimal value (0,5), which threatened the risk of insolvency if they fail to repay their debt on time. However, the situation further improved to 0,35 in 2017.

The latest indicator that characterizes the financial stability of the company and its commercial lending policy is the Accounts Payable-to-Accounts Receiveble ratio. From the Table 2.3 it is noticeable that by 2015 the value of the indicator approximated to the optimum value (1,0), which indicated that the company could lend to its buyers at the expense of suppliers, and their equity is not distracted by lending to customers.

After that, the indicator rapidly dropped to 0,37, which is a sign of ineffective commercial lending policy.

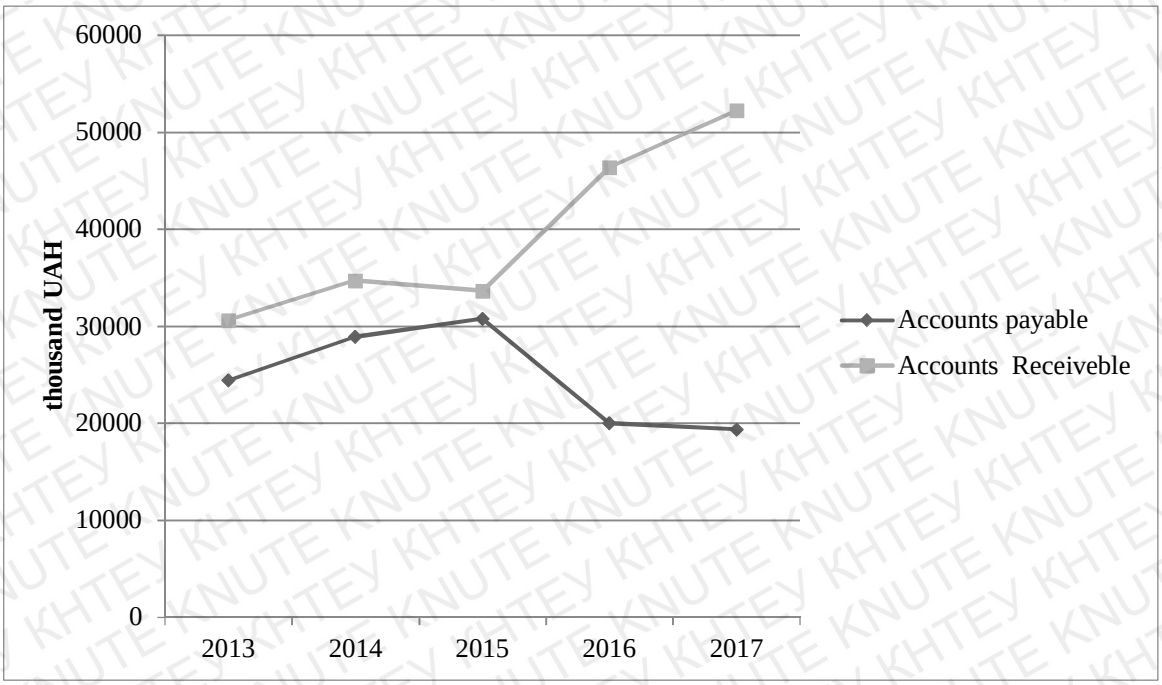


Figure 2.1. Dynamics of the accounts receivable and accounts payable of PJSC "MONPHARM" for the period 2013-2017, thousand UAH

Source: compiled by the author based on the calculations and on Appendix A; C

As a result, debtors owe the company more money than the company received from suppliers. From the Figure 2.1 it can be seen how over the last year receivables exceed the payables more than twice, which is completely different from the situation of past years.

Businesses also need to gauge the efficiency of their business practices, which they can do using activity ratios. Activity ratios are financial analysis tools used to measure a business' ability to convert its assets into cash.

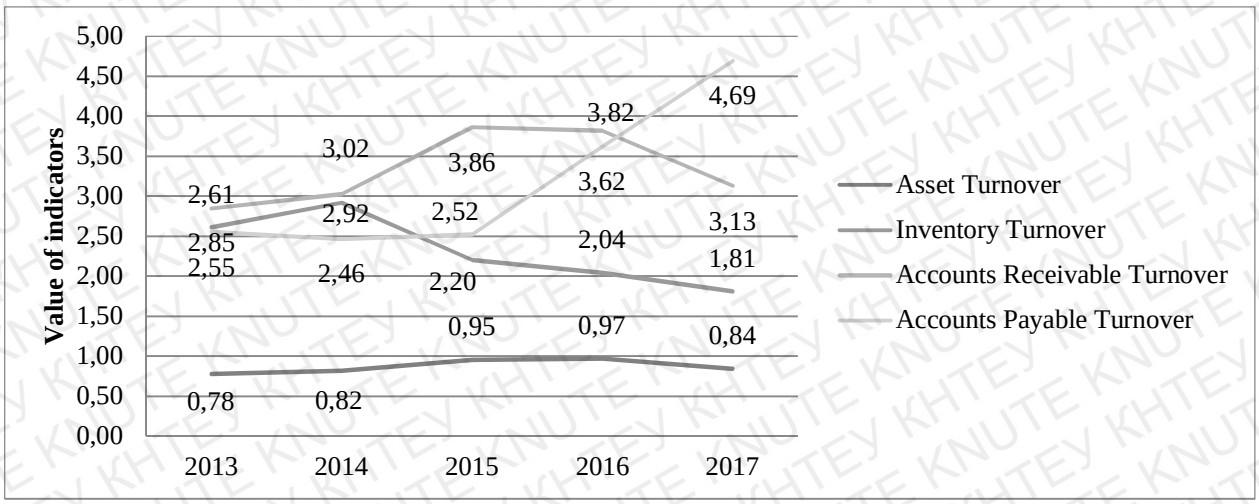


Figure 2.2. Analysis of the business activity ratios of PJSC "MONPHARM" for the last five years in 2013-2017

Source: compiled by the author based on the calculations and Appendix A; C

The first ratio that helps to measure the productivity of a company's assets is asset turnover. In general, in the case of PJSC "MONPHARM", the value of the indicator is stable and during the last 5 years the company is generating almost 1 griwna of revenue per griwna of assets.

Inventory turnover is a measure of the number of times the inventory is sold or used in a given time period, such as one year. As can be seen from Figure 2.2, the value of the indicator is rapidly falling.

Table 2.4

Analysis of the cost of sold goods and the value of the average inventory of PJSC "MONPHARM" in 2013-2017, thousand UAH

Indicator	**2013**	**2014**	**2015**	**2016**	**2017**
Cost of goods sold (sales)	-47 290	-63 223	-68433	-81202	-80118
Average inventory	18128,50	21663,00	31135,00	39874,00	44309,00

Source: compiled by the author based on the calculations and on Appendix A; C; E

If we look at the dynamics of changes in the cost of goods sold (sales) and Average inventory (Table 2.4), We can talk about the non-proportional increase in average

inventories relative to sales (2017 units), which is the result of ineffective inventory management (that is, carrying too large an inventory) and poor sales.

The next indicator, which characterizes the business activity of an enterprise, is the "An accounts payable turnover ratio", which measures the number of times a company pays its suppliers during a specific accounting period.

In turn, accounts receivable turnover ratio determines how quickly a company collects outstanding cash balances from its customers during an accounting period.

As can be seen from Figure 2.2 both indicators gradually increased, however, starting from 2015, their values became completely opposite, due to the fact that during this period (Figure 1.2), debtors owed companies more money than the company received from suppliers (as already mentioned above).

For the final analysis of the financial activity of an enterprise, it is also important to focus on operational, financial and combined leveridge.

Table 2.5

Value of indicators of operational, financial and combined leveridge of PJSC "MONPHARM" in 2013-2017

Indicator	2013	2014	2015	2016	2017
Operating leverage	1,08	10,21	1,26	26,46	1,00
Financial leverage	1,07	1,06	0,99	0,00	0,91
Combined leverage	1,15	10,87	1,24	0,00	0,91

Source: compiled by the author based on the calculations and on Appendix B; G

Operating leverage is the degree to which a firm or project can increase operating income by increasing revenue. As can be seen from Table 2.5, the best results were observed in 2014 and 2016. For every 1 gryvnia of change in sales, the company had a surplus of 10,21 gryvnias in EBIT in 2014, and for every 1 gryvnia change in sales – 26,46 gryvnias in EBIT in 2016.

The degree of financial leverage (DFL) is a ratio that measures the sensitivity of a company's earnings per share (EPS) to fluctuations in its operating income. As can be seen for the whole period, the index keeps close to 1, but in 2016, changes in EBIT did not bring any changes in EPS.

In the case of combined leverage, which summarizes the effects of combining financial and operational leverage, a similar picture is observed. However, in 2014, for every 1 gryvnia change in sales, the company had a 10,87 gryvnias in EPS due to the rapid growth of EPS, which means that the company was seen as riskier than now (with less combined leverage), because high leverage means more fixed costs to the firm.

Thus, it can be concluded that PJSC "MONPHARM" is economically and financially stable. The indicators of liquidity, profitability and financial stability are within the limits of norm, and profitability in general has a positive dynamics. Therefore, the company has enough capacity to compete with other enterprises.

2.2 Monitoring of foreign economic environment of the enterprise

The global pharmaceutical market, along with the oil, gas and mineral fertilizer market, is one of the most profitable sectors of the international economy. This is due to the specifics of the pharmaceutical industry, namely the constant need for medicines and the inelasticity of demand for them [37, p. 32].

The global prescription drug market was underlying growth of 1,2% in 2017 to 825 bln. US dollars, from 814 bln. US dollars in 2016. It is also projected to increase by 1170 bln. US dollars in 2021, growing at 5,8%. Compound growth over five years and 10 years of just 1,34% and 2,64% respectively, which is much lower than many industry commentators had predicted [73, p. 8].

During the period 2013-2017 the Brazilian, Chinese and Indian markets grew by 11,5%, 9,4% and 11% respectively compared to an average market growth of 4,4% for the top 5 European Union markets and 7,3% for the US market. In 2017 North America accounted for 48,1% of world pharmaceutical sales compared with 22,2% for Europe (Appendix H). 64,1% of sales of new medicines launched were on the US market, compared with 18.1% on the European market (top 5 markets). The fragmentation of the EU pharmaceutical market has resulted in a lucrative parallel trade. Parallel trade was estimated to amount to 5,202 million euro (value at ex-factory prices) in 2016 [24].

Current and permanent changes in political, economic, social, technological, legal and environmental factors influence the growth of the market for medical services, where drugs play an important role [81]. That is why the best way to estimate the enterprise environment and the influence of external factors on its activity is to use PESTLE analysis. The following factors - all of which affect the market of medical services:

Political factors

- The most important factor that can influence the activity of a Ukrainian enterprise from outside is the deepening of the processes of European integration associated with the implementation of a number of measures:

- deepening of international cooperation of domestic manufacturers of pharmaceutical products and with foreign ones;
- ensuring the investment of domestic manufacturers of medical products in conducting research and development;
- optimization of logistic supply chains, production and sales of pharmaceutical products;
- accelerating the process of reforms implementation in the healthcare system and the introduction of European standards in the pharmaceutical sector [71, p.54].

- The next factor influencing the activity of the pharmaceutical company not only in Ukraine but also in the world is the impact of new president election in the USA in 2017. Increase in the number of generic drugs approvals by the U.S. Food and Drug Administration has initiated price wars among generic drug manufacturers in the US market. This has a purpose to make healthcare more affordable. US-FDA has also relaxed its regulations that have lowered entry barriers. Moreover Trump is dissatisfied with Obamacare. His order doesn't include curbing drug prices (as it was expected before), instead drug companies will get more power to charge prices overseas, and they will be allowed to give even fewer discounts to hospitals with poor patients.
- GST implementation in India: GST implementation in India will result in effective supply chain. It is observed that an efficient SCM can result in an overall deduction of 25-50% in total supply chain costs along with another 25-60% decline in

inventory holding. Still, the GST impact on pharma industry is not transparent. But it is a win win situation for both end consumers and industry players. With reduced complexities and overall reduction in cost translated to more profitability and thereby development.

- In addition, a major influence on the ability of an enterprise to compete in the international market is the policy of public health financing. As can be seen (Figure 2.3) the best positions in the ranking of countries are taken by the United States and the EU, which is largely a result of a high GDP per capita.

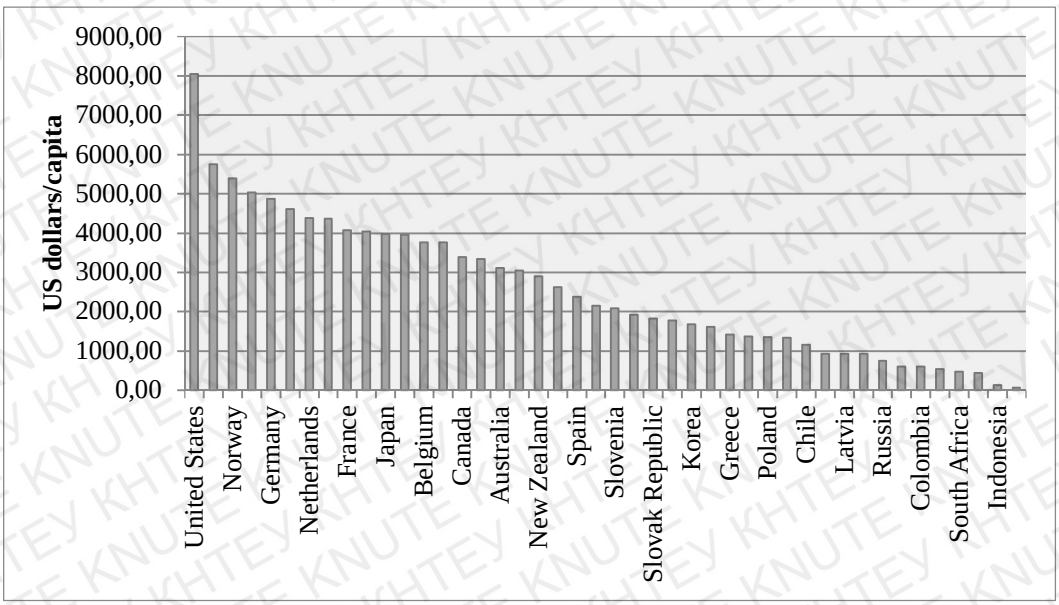


Figure 2.3. Domestic general government health expenditure per capita in 2017, US dollars

Source: compiled by the author based on [84]

Economic factors

- When it comes to the economic component, currency fluctuations are an important factor affecting the production of products (especially products of Ukrainian origin) and the level of its competitiveness as a result of exports. First of all, it can increase or decrease the cost of imported raw materials and change demand outside the country at price fluctuations.

It is clear that the exchange rate of US dollar is virtually impossible to predict. The only thing is to observe the dynamics of past years (Figure 2.4), have some ideas about seasonal changes in the exchange rate and prepare for them.

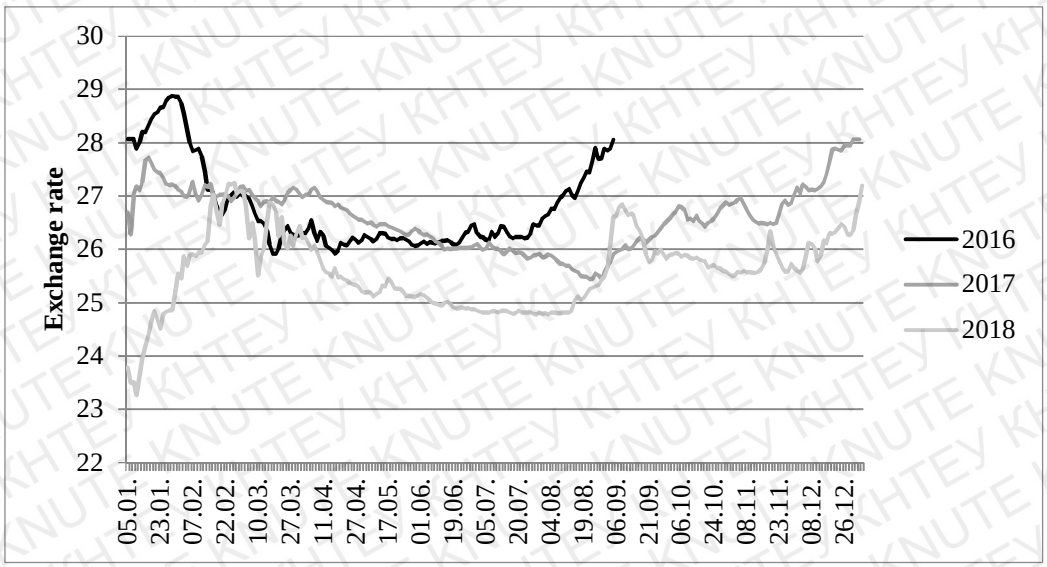


Figure 2.4. The dynamics of the exchange rate of USD to UAH in 2016-2018

Source: compiled by the author based on [55]

As can be seen from the Figure 2.4 we can assume that the dollar exchange rate in 2019 will have a similar dynamics. That is, it will grow in the cold period and will decrease in the warm period of the year.

- The global economic crisis still exists, but government reports still show that the spend on healthcare per capital continues to grow (Figure 2.5).

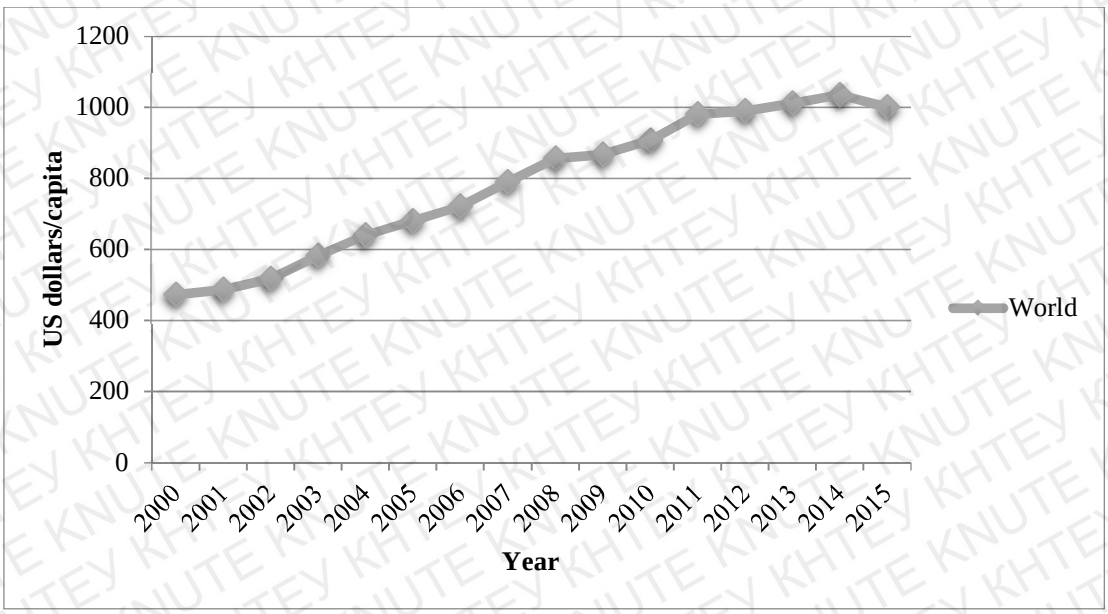


Figure 2.5. Current health expenditure in the World, US dollars per capita

Source: compiled by the author based on [85]

Structural rise in demand boosted by growing middle classes in emerging markets and ageing population as a whole [26].

- Increased pressure on health care costs: Health pressure has led governments and payers (health insurers) to seek ways to reduce costs but still looking for quality care for the greatest number of people.

The top 25 selling drugs rose in price by 59,8 percent on average over the last five years. Additionally, in 2016 alone, 19 drugs had price increases over 1,000 percent; 43 over 500 percent; 156 over 100 percent and 1,995 drugs had price increases in the range of 9 to 40 percent [52].

- Decrease in consumer disposable income will have an impact on those countries that use the health insurance model, especially where a partial payment is required.

As it can be seen (Figure 2.6) the highest share of health insurance expendeture belongs to the countries with a low income. It can be caused by not sufficient income of the population from which they make a payment for their insurance.

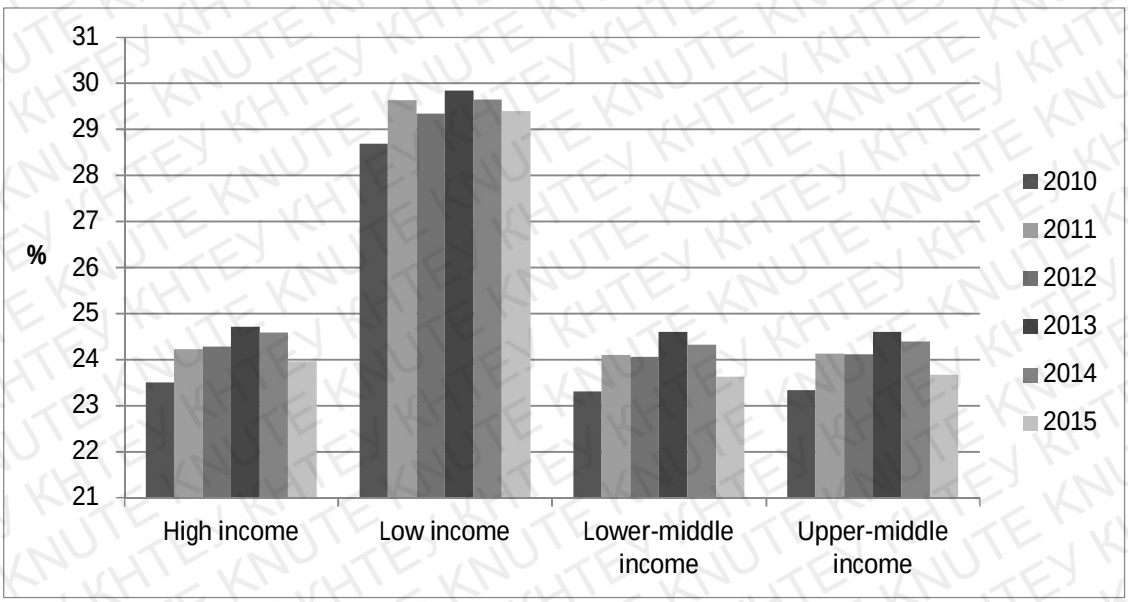


Figure 2.6. Social Health Insurance (SHI) as % of Current Health Expenditure (CHE) in the countries with a different icome level in 2010-2015

Source: compiled by the author based on [92]

- Increased pressure from shareholders has caused a consolidation of the industry: more mergers and acquisitions will take place over the coming years.

The M&A activity of pharmaceutical and biotech companies has somewhat abated compared to previous years . In 2017, it was announced the conclusion of 101 M&A deals. In 2016, there were 130, and in 2015 - 166. At the same time, the number of transactions exceeding 1 bln. US dollars, in 2017 it was 15, in 2016 - 23, and in 2015 – 30 [82].

In general, in 2017 was not very fruitful both in terms of the number of transactions and the amount of investment in them (Figure 2.7). However, a number of major agreements were concluded, among which the agreement on the acquisition by the US pharmaceutical company "Gilead Sciences, Inc." and "Kite Pharma, Inc." for 11,9 bln. US dollars is in the lead (180 US dollars per share).

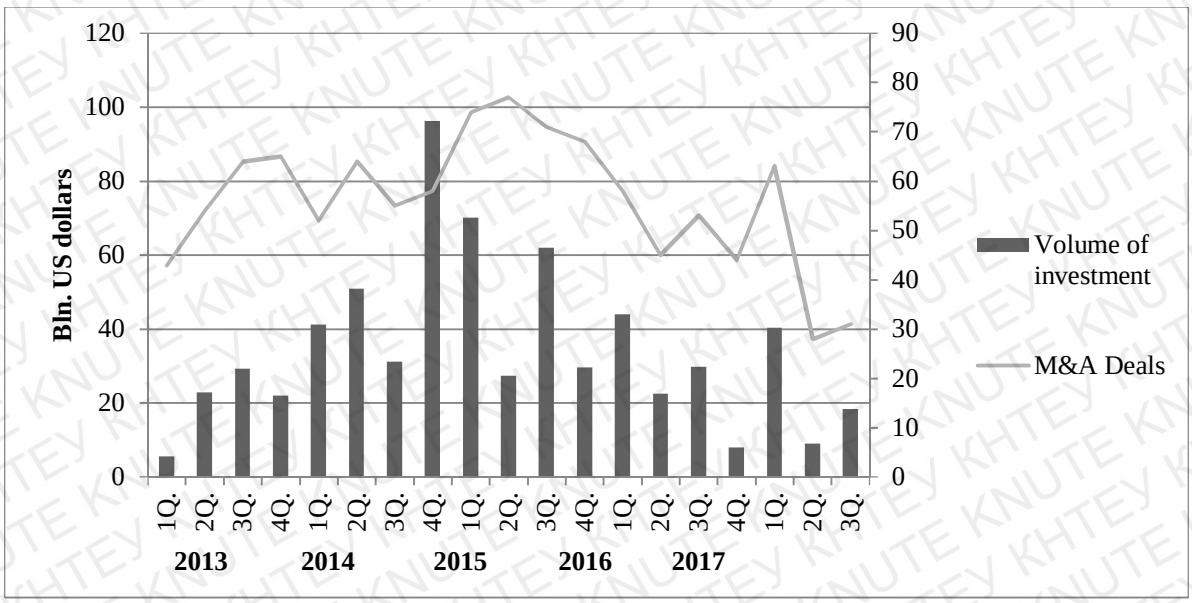


Figure 2.7. Quarterly M & A activity of pharmaceutical companies on the world market in 2013-2017, bln. US dollars

Source: compiled by the author based on [41]

Mergers that have had a major impact on the pharmaceutical market:

- Smithkline Beecham (UK) was established by a merger of Glaxo Wellcome and SmithKline Beecham;

- American Home Products (USA) was established by a merger of American Home Products and American Cyanamid;
- Glaxo Welcome (UK) was established by a merger of Glaxo and Welcome;
- Roche (Fr) was established by a merger of Roche and Syntex;
- Novartis (Swiss) was established by a merger of Ciba and Sandor;
- Pharmacia & Upjohn was established by a merger of Pharmacia (Sweden) and Upjohn (USA), after that it was a merger with Pfizer.that formed a new company Pfizer.

The merger, which can be considered one of the most successful in the industry, is undoubtedly the formation of Novartis. Novartis is constantly updating rheir products. The same is typical for other leaders in the world pharmacy. For example, the company Eli Lilly (USA) has won the market with new products - antidepressant Rhugos and a tool against schizophrenia Zurreh. Merck (UK) is the world leader in cardiovascular drugs, the largest group of medicines. However, in 2008, a new leader in pharmaceuticals - Viagra, produced by Pfizer - appeared. It is believed that this is the most popular in terms of sales of the drug of the century [41].

Social factors

- The increasing aging population offers a range of opportunities and threats to the pharmaceutical industry. According to long-term forecasts of the United Nations, by 2025, the world's population will grow three times as compared with 1950, and the number of elderly people will be 6 times, while the number of elderly people over the age of 80 will increase by 10 times [41].

It is important to notice that significant revenue comes from only 4 geographical markets that are the USA, China, Europe and Japan. The USA, China and Europe have an average age of population ranging between 36 to 39 years where it is expected that the average age of the population will reach 50 years by the year 2045 and this will give a major boost to the pharmaceutical industry just like Japan's (average age-47) pharmaceutical market is huge considering the relatively small population of the country when compared to the USA, China and Europe.

- There is also the problem of the increasing obesity amongst the population and its associated health risks. A study by an international group of scientists showed that 30%

of the world's population is suffering from excess weight. Among the main threats to the health of full people - cardiovascular disease, diabetes and various types of cancer. The new study analyzed data collected in 195 countries from 1980 to 2015. In 2015 in the whole world 2,2 billion people suffered from overweight. This figure is constantly increasing, with the growth rate of childhood obesity today is much higher than in adults [41].

Diabetes is the single largest major disease affecting about 420 million worldwide which is roughly 1 in 11 individuals and more than 2,2 billion people worldwide are reported to be obese.

Similarly, it has been estimated that more than 220 million people will be suffering from hypertension by 2025 while the figure was less than 120 million in the year 2000.

It is also important to pay attention to diseases that take millions of lives around the world (Figure 2.8).

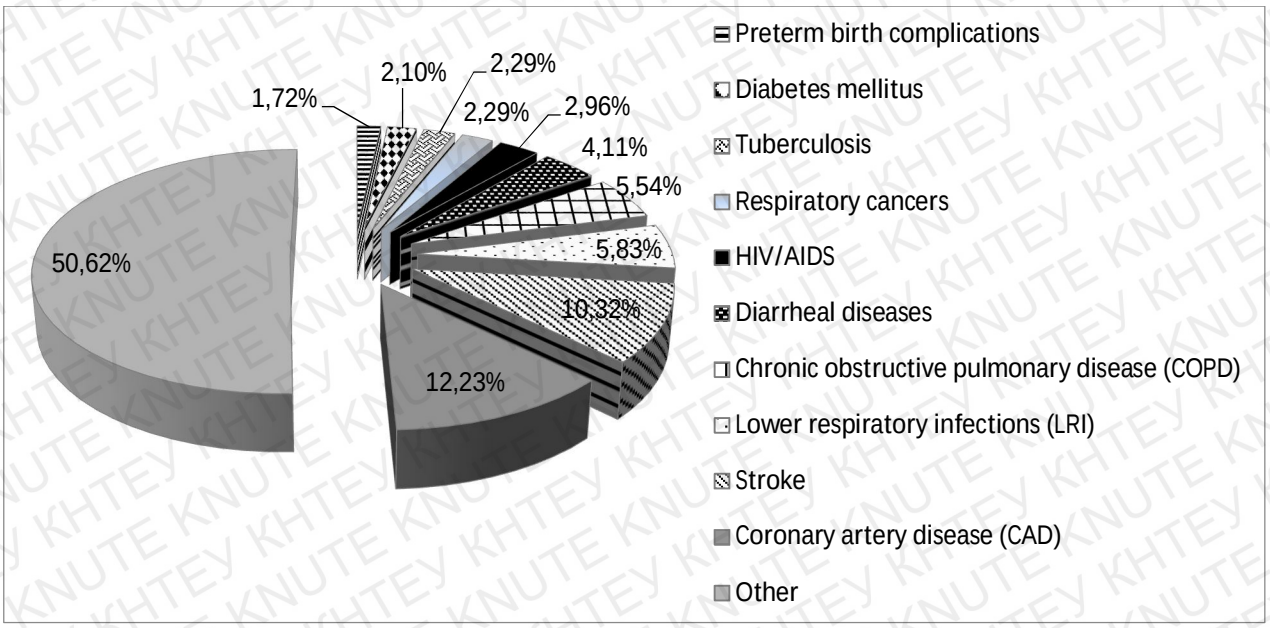


Figure 2.8. Top 10 deadly diseases in the world in 2016, %

Source: compiled by the author based [92]

For a better understanding of the situation, the attention can be also paid to the map of the most common diseases in every country in the world (Apendix I).

All these factors contribute in a significant manner in increasing the consumption of the drugs which eventually helps the pharmaceutical companies to increase their revenue and sales.

Technological factors

Technological achievements will create new prospects for business, both in terms of new therapeutic systems and services. On the Internet there will be new opportunities: new information and communication technologies; social networking for the healthcare.

In 1981 pharmaceutical companies in the U.S. began advertising direct to consumers (DTC). It has grown from a spending of 12 mln. US dollars yearly to over 4,5 bln. US dollars spent on advertisement in recent years. The growth of DTC has stagnated and now is only 14% of the industries advertising cost, but DTC is still the foundation of marketing for many pharmaceutical companies [90].

The U.S. and New Zealand are the only countries that allow DTCPA that includes product claims. Most other countries don't allow DTCPA at all. However, Canada does allow ads that mention either the product or the indication, but not both [72, p. 1126], [56, p. 40]. The pharmaceutical industry and lobby groups have tried unsuccessfully to overturn bans against DTCPA in Canada and other countries or regions, such as in the European Union (EU) [58, p. 26], [40, p. 576]. Notably, in 2008, 22 of the 27 EU member states voted against proposed legislation that would have allowed even limited "information to patients" to be provided [40, p. 577].

If we talk about the CIS countries, in these countries advertising of medicines is also allowed, but has its own specificity.

An important component of the technological impact on the pharmaceutical industry is the cost of R & D. Nowerdays investment in R&D remains strong (Figure 2.9).

In 2017, the top 15 companies invested 20,3% of pharmaceutical sales back into new drug development, compared with 20,5% in 2016. Another important fact is that the average R&D spend of the top 15 companies was 5,7 bln. US dollars – ranging from 9,2 bln. US dollars (Roche) to 3,3 bln. US dollars (Gilead). Total R&D spend of the top

15 companies was 86,6 bln. US dollars out of a total estimated spend of 117 bln. US dollars by 40 companies.

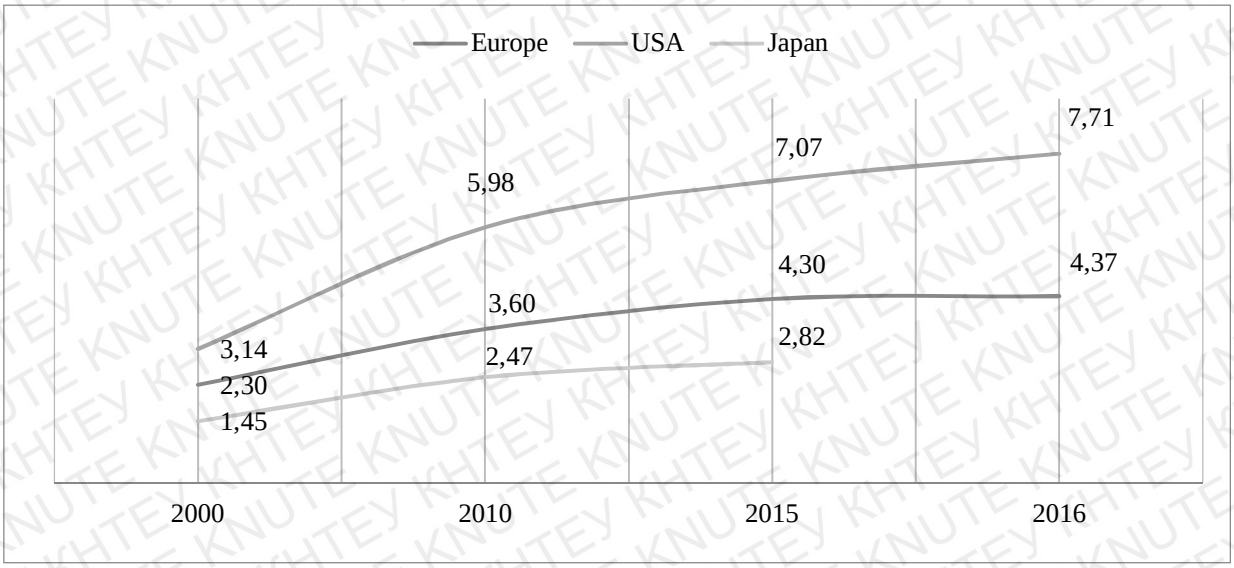


Figure 2.9. Pharmaceutical R&D expenditure in Europe, USA and Japan in 2000-2016, in % to 1990

Source: compiled by the author based on [24]

Over the last 10 years, the top 15 R&D investors have increased spend at a 3,1% CAGR from 63,9 bln. US dollars (18.9% of pharma sales) to 86,6 bln. US dollars (20,3%). The highest spenders were Celgene (45,6% of sales), AZN (27,9%), and Eli Lilly (25,4%); while the lowest spenders were Gilead (12,8%) and GSK (14,7%). It should be noted that the 15 constituent companies that comprise the top 15 are different each year [73, p. 11].

Legislation factors

•The level of value added tax (VAT) will also affect prices: the rate for pharmaceuticals varies across Member States from zero (e.g. UK and Sweden) to 25% in Denmark. Some Member States such as Greece have recently raised VAT rates for pharmaceuticals [20, p. 53].

High income countries in EU, all using VAT systems, data on medicines taxes has been assembled for 2010 (10) and is summarized in Appendix J.

In some other high-income countries, medicines are tax-exempt (Australia, Japan, Korea), while the picture in the USA varies from state to state as Appendix K shows.

Unlike other industrialized countries, the USA does not have VAT but most states have a General Sales Tax.

Customs duties amount to one-third of total taxes and duties applicable to pharmaceutical products and the value of the tax rate range from 0% to over 20%. For the group of 17 least developed countries, their study found that average VAT rates on pharmaceuticals amounted to 8,8%, the average "other fees" accounted for an additional 2,8%, while the average customs tariff was only 1,9%, thus “their average total rate of duties and taxes is around 14%”.

Appendix L shows just how variable local practice is in relation to taxation of medicines in LMIC. Where medicines are taxed, the range is from about 5% to about 34%. Not all medicines are taxed in all countries. Imports and locally made medicines are sometimes taxed differently e.g. Tunisia adds a 6% tax to locally produced medicines but not to imports. Medicines sold in the public and private sector are sometimes taxed differently. But for the countries in which medicine price component data has been collected, it is clear that governments are indeed a contributor to the price of medicine and thus a factor in restricting access to essential medicines.

In order to regulate the quality of pharmaceutical products, various quality standards are applied by law in different countries of the world.

An international standard that sets requirements for the production and quality control of medicinal products for humans and animals, as well as special requirements for the production of active pharmaceutical substances and certain types of drugs is called Good Manufacturing Practice.

An official document confirming the compliance of the conditions of production of medicinal products with GMP requirements is a GMP that confirms the conformity of production conditions [50].

Moreover there are some other certificates such as 1S0 9001 (Quality management systems standards), GLP (Good Laboratory Practice), GDP (Good Distribution Practices), GPP (Governance and Professional Practice).

Standards to which many countries around the world want to approach, including Ukraine are the standards of the European Union.When applying for marketing authorisation, companies must provide documentation showing that the product is of suitable quality. This is assessed in accordance with criteria set out in EU legislation (Annex 1 of Directive 2001/83/EC and guidelines (EudraLex Volume 3) [50].

Environmental factors

There is a growing environmental program, and the key stakeholders are becoming increasingly aware of the need to revitalize business in this area. Pharmaceutical companies should see how their business and marketing plans are related to environmental issues. It is also possible to include it within the framework of corporate social responsibility programs. Marketing and development of new products should also determine environmental opportunities.

Thus, after analyzing the foreign economic environment of the enterprise, it can be concluded that it is difficult to compete on the world market of pharmaceutical products, since there are quite a lot of strong competitors on the market. In addition, the obstacles to entering foreign markets may be the peculiarities of legislation of other states, different levels of income and needs of the population and high expenditure on R&D.

2.3. Evaluation of international competitiveness of PJSC "MONPHARM" in the market of pharmaceutical products

Nowadays the pharmaceutical market is still competitive and is represented by large companies, which are seting a vector of development. This situation can motivate brand companies to create new and improved medicines and encourage generic companies to offer cheaper alternatives.

According to a recent study, the top 15 drug companies accounted for 53% of the world market in 2017 compared to 52,8% in 2016 [73, p. 18].

The global pharmaceutical industry is dominated by American and European markets. In 2017, nearly all of the ten largest pharmaceutical companies are located in these two regions.

Despite the fact that in recent years in other regions such as China and India, there has been a growth in life science markets due to the availability of powerful capital opportunities and increased demand for products and devices, the United States and Europe remain the mainstream of pharmaceutical consumption and development [63].

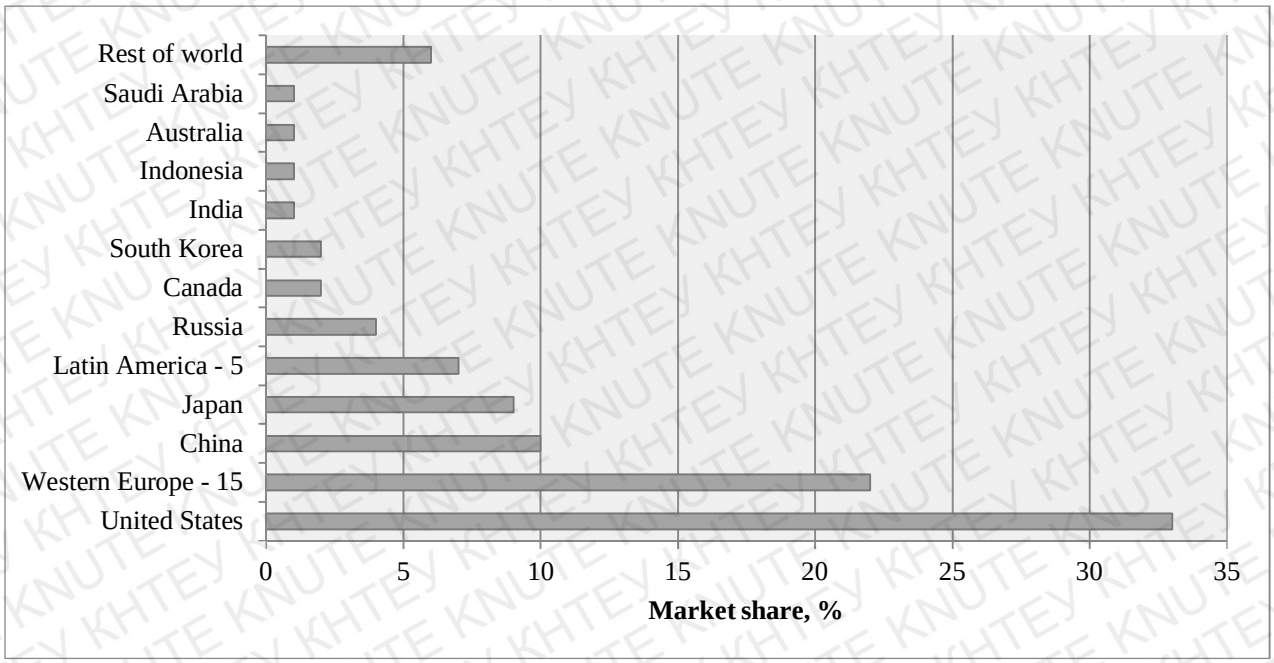


Figure. 2.10. Share of pharmaceutical revenue worldwide in 2017 by country, %

Source: compiled by the author based on [84]

The Middle East and North Africa region (MENA) accounts for only 2% of world sales of medicines. Rapid population growth has reduced demand for drugs, especially for higher-income pharmaceuticals that attract the attention of multinational pharmaceutical companies. Of the 22 odd countries in the region, Turkey, Israel, Saudi Arabia, Egypt and Iran are ranked as the largest markets in terms of the projected growth potential and value that presents many opportunities [62].

This statistic shows the share of pharmaceutical revenue worldwide in 2017, by country (Figure 2.10). In that year, the U.S. held a share of 33 percent of the global

pharma revenue which was the largest share, followed by 15 Western Europe countries which held a share of 22 percent.

The most important players in the global pharmaceutical market are (Table 2.6).

Table 2.6

Main market players of pharmaceutical industry in 2017

Rank		Company	Change in sales, in %, 2017 to 2007	Market share, %		Increase/decrease in market share. %
2007	2017			2007	2017	
1	1	Pfizer	+0,6	6,98	5,50	- 1,48
4	2	Novartis	+3.0	5.20	5.22	0.02
5	3	Roche	+3,2	4,99	5,08	0,09
8	4	Johnson & Johnson	+3,8	4,05	4,39	0,34
7	5	Merck & Co	+2,8	4,36	4,29	-0,07
2	6	Sanofi	-1,3	6,32	4,13	-2,19
3	7	GlaxoSmithKline	-2,8	6,27	3,51	-2,77
10	8	AbbVie	+5,8	2,62	3,42	0,80
27	9	Gilead Sciences	+21,3	0,61	3,11	2,50
13	10	Amgen	+4,3	2,33	2,64	0,31

Source: compiled by the author based on [73, p. 5]

Seven countries - China, Brazil, Russia, Turkey, India, Mexico and South Korea - are considered to be key drivers for global Pharma by 2020 [88]. In the territorial context, leadership is held by North America, Western Europe (top 5) and Japan [37, p. 34].

Unfortunately, the company PJSC "MONPHARM" is not yet powerful enough to compete with world leaders. In terms of production, it ranks 13th among 162 domestic pharmaceutical manufacturers. In spite of this, there is a work on the exit of the company into the pharmaceutical markets of the CIS countries. Nowadays, cooperation has been established with the Republic of Belarus, preparations have been registered in Moldova and Turkmenistan. The enterprise has a long history of cooperation with Belarus. PJSC "MONPHARM" began its export activity to this country in 2000.

In general, the volume of the pharmaceutical market of Belarus can be characterized as follows. The capacity of the Belarusian pharmaceutical market was more than 1 bn US dollars in 2014 (+ 5,6% as compared with 2013). In general, over the last 5 years a negative trend in the Belarusian pharmaceutical market can be observed. In 2015 there is a drop in sales by 22,1%, after which it continues at a level of 1-3%.

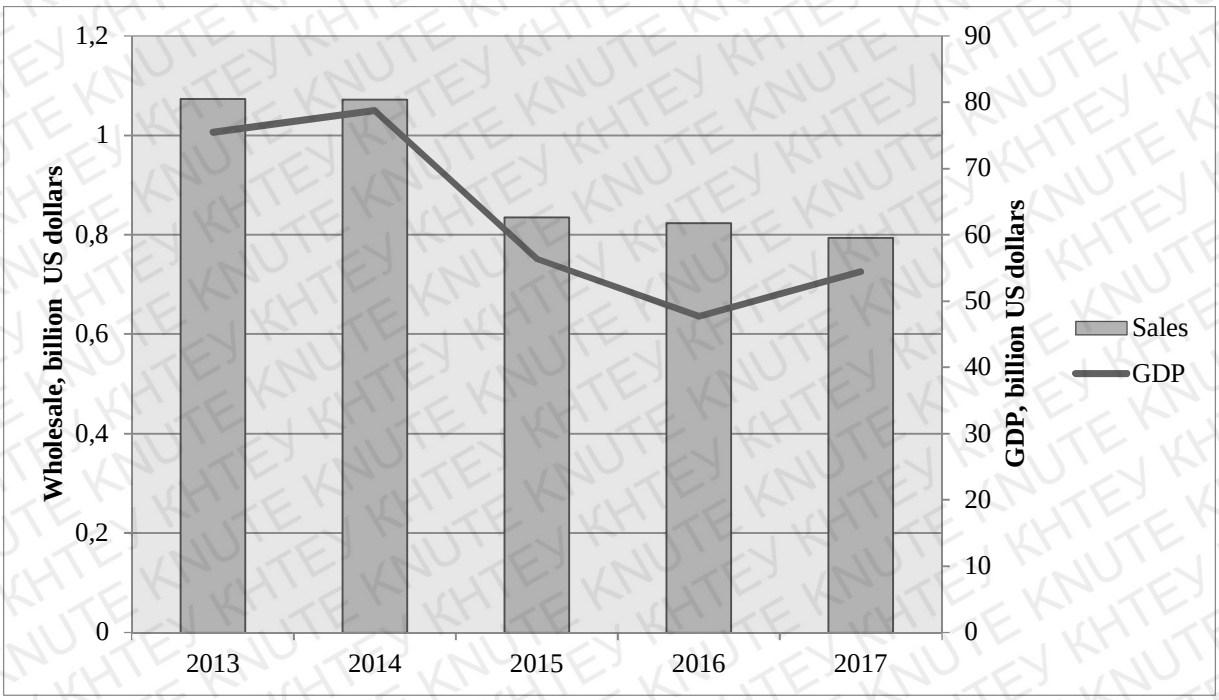


Figure 2.11. Dynamics of growth of Belarusian GDP and wholesale in the pharmaceutical market in 2013-2017, bln. US dollars

Source: compiled by the author based on [84]

As can be seen from the Figure 2.11 on the Belarusian pharmaceutical market there is a large correlation between the volume of sales and GDP of the country. Despite the fact that starting from 2016, GDP began to grow slowly, sales volume is steadily declining. In general, this may be due to the large dependence of the market on the state and its control.

The industrial manufacturing of medicinal products is carried out by nearly three dozen companies, among them – two state owned companies and three companies with the state share over 50%. Private businesses are usually either small or mediumsized

companies and occupy a small share in the market. Currently, 70% -75% of the total industrial production of medicines is provided by state-owned enterprises, 25% to 30% is provided by non-state ones. The largest of the Belarusian State Medicines manufacturers are Belmedpreparaty RUE and Borimed OJSC. Also, there are some other major Belarusian producers with foreign capital – Lekpharm JLLC (Bulgaria), JV Pharmland LLC (the Netherlands) (Figure 2.12).

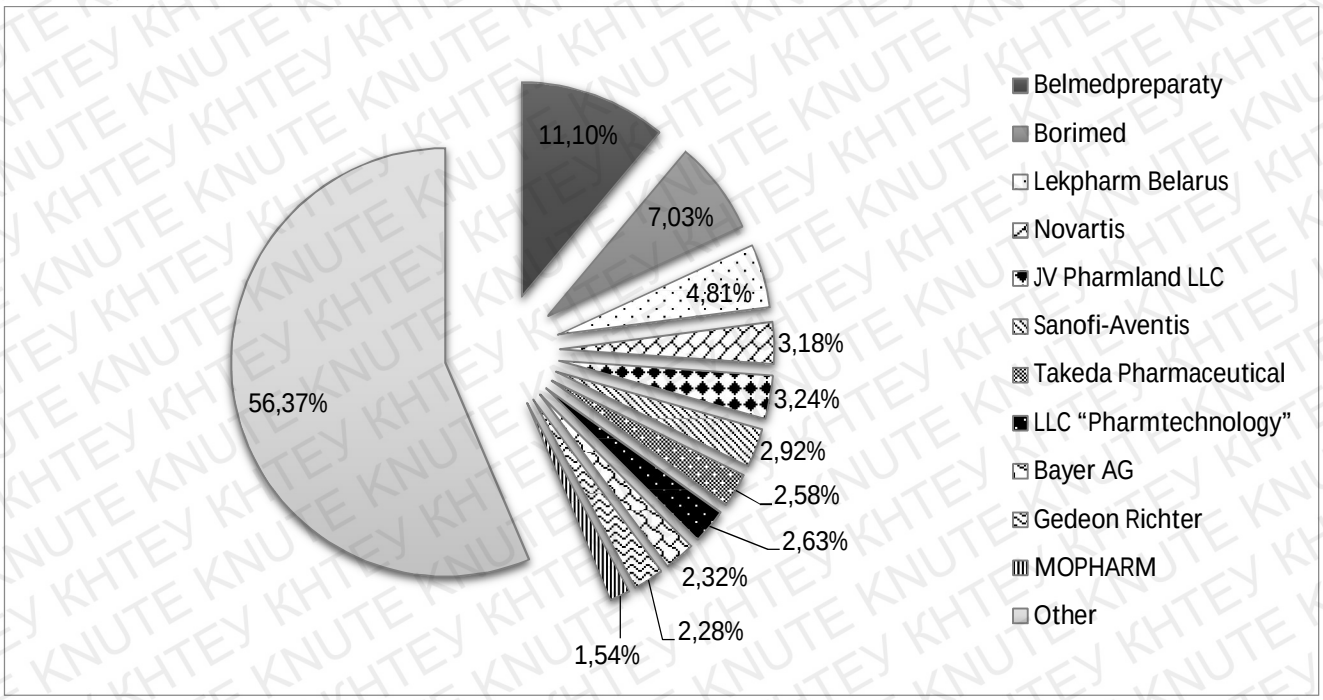


Figure 2.12. The share of the largest manufacturers of pharmaceutical products on the Belarusian market in 2017, %

Source: compiled by the author based on [8, p.3], [43, p.5]

In 2017 the share of supply of Belmedpreparaty RUE in the retail and hospital markets was 8,2%, the share of Borimed OJSC was 5,19%, the share of JV Pharmland LLC was about 2,39%, and the share of Lekpharm JLLC was 3,55%. In turn, the share of Ukrainian enterprises amounted to 1,14%.

For a better understanding of the positions of competitors in the market it is important to consider the volume of their sales in dynamics (Figure 2.13).

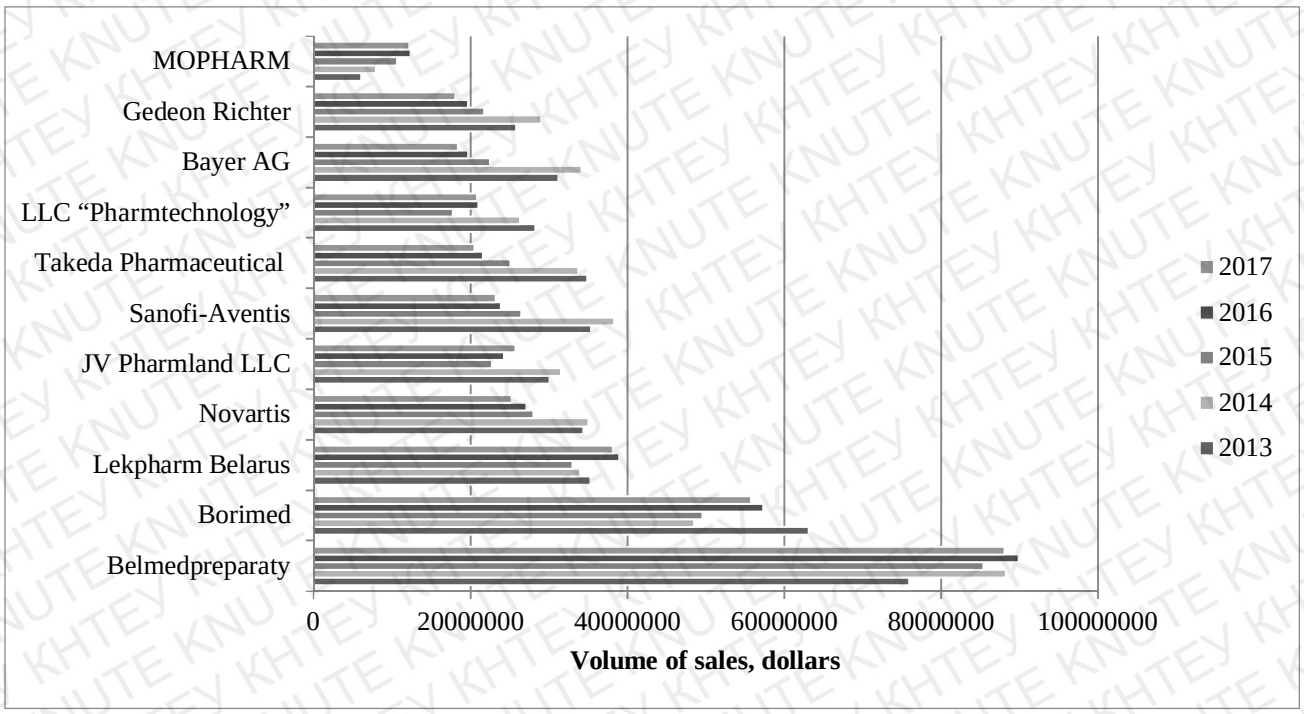


Figure 2.13. Dynamics of sales volume of the largest manufacturers of pharmaceutical products on the Belarusian in 2013-2017, US dollars

Source: compiled by the author based on [8, p.3], [43, p.5]

If we have a look on the overall dynamics of drug sales by the largest enterprises, we can conclude that their growth was not evenly distributed. The turning point for almost every one was 2014. After that the sales volume of 70% of these companies decreased. Only in such companies as Lekpharm Belarus, Borimed and Belmedpreparaty there was a growth (Borimed - relative growth). Thus, we can talk not only about the large share of these enterprises in the market, but also about their stability during the last 5 years.

With a more detailed examination of the dynamics of sales of PJSC MONFARM, it can be noted that since 2013, sales have increased (Figure 2.14). Only in 2017, its number decreased, taking into account the fact that the revenue for this period also decreased. If we have a look at the dynamics of the company's share in the market (Figure 2.14), it may be seen that It also decreased (because of sales), but taking into account the drop in sales volumes in the pharmaceutical market of Belarus itself, the reduction in the share of PJSC "MONPHARM" was only about 0,01% [8, p. 9].

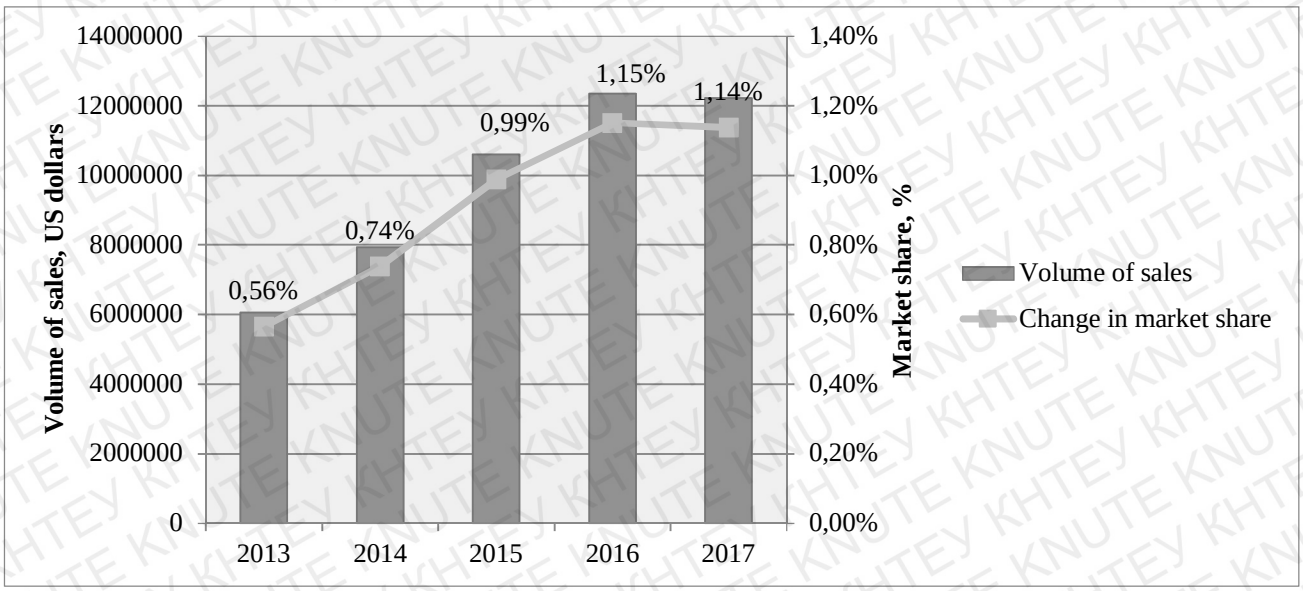


Figure 2.14. Dynamics of sales volume and market share of the PJSC "MONPHARM" on the Belarus market in 2013-2017

Source: compiled by the author based on the calculations and finansial statement

As in most companies, the market share on the average is 3% on the Belarus market, PJSC "MONPHARM" with an index of more than 1% compels to attract attention. The main feature of the enterprise is that it pays special attention to the manufacture of medicines in the form of suppositories, and today it is the leader in their production throughout Ukraine.

PJSC "MONPHARM" has mastered several directions of suppository dosage forms:

• suppositories for children;

• local action suppositories for use in obstetrics, gynecology and proctology;

• suppositories of systemic action for the treatment of allergies, respiratory organs, cardiovascular, gastrointestinal, urological and other diseases.

In 2004, the achievements of PJSC "MONPHARM" in the production of suppositories was noted by the Assembly of Business Circles of Ukraine. For introduction of modern technologies and production of high-quality drugs in the form of suppositories PJSC "MONPHARM" became the winner of the national competition "The higher test" and the winner of the regional stage of the competition "100 best goods of Ukraine" in the nomination "industrial goods for the population".

Regardless of the position of the company in the domestic market, it is very important to determine whether the export of suppositories to Belarus is cost effective. To do this, it is needed to calculate the export efficiency and effect of exporting suppositories.

In the Table 2.7 are given the costs of production, price and quantity of products sold from 2013 to 2017.

Table 2.7

Dynamics of sales volumes of packages, production costs, prices of suppositories in 2013-2017

Years	Indicator	Name of suppositories								
		Diclofenac	Methyluracil	Metronidazole	Ichthyol	Anusol	Paracetamol	Nystatin	Ophthalmic suppositories	Belladonnae extract
2013	Cost of production, UAH	-	8,03	-	10,89	11,35	5,42	-	-	6,60
	Price, USD	-	1,21	-	1,65	1,72	0,82	-	-	1,00
	Quantity, packages	-	761991	-	1021729	806212	1502726	-	-	840657
2014	Cost of production, UAH	-	10,49	-	14,23	14,83	7,08	-	9,49	8,62
	Price, USD	-	0,82	-	1,11	1,16	0,55	-	0,74	0,67
	Quantity, packages	-	1338803	-	1795157	1416497	2640257	-	977045	1477017
2015	Cost of production, UAH	18,25	15,16	-	20,57	21,44	10,24	17,96	13,71	12,46
	Price, USD	0,97	0,80	-	1,09	1,14	0,54	0,95	0,73	0,66
	Quantity, packages	663071	1573112	-	2109335	1664405	3102340	892744	1148042	1735517
2016	Cost of production, UAH	18,47	15,34	21,01	20,81	21,69	10,36	18,17	13,87	12,60
	Price, USD	0,92	0,76	1,04	1,03	1,08	0,51	0,90	0,69	0,63
	Quantity, packages	768505	1823250	660469	2444736	1929058	3595637	1034697	1330590	2011478
2017	Cost of production, UAH	19,11	15,88	21,74	21,54	22,45	10,72	18,81	14,36	13,04
	Price, USD	0,97	0,81	1,11	1,10	1,14	0,55	0,96	0,73	0,66
	Quantity, packages	716639	1700201	615894	2279744	1798868	3352972	964866	1240790	1875725

Source: compiled by the author based on the own calculations

The Table 2.7 shows that such type of product like Ophthalmic suppositoriesis have been being sold by the company on the Belarus market since 2014, Nistatin and Diclofenac - since 2015, and Metronidazole- since 2016.

After analyzing the data it can be concluded that in 2013 the largest share in sales took Paracetamol - 30% (which may be due to its lowest price). Methyluracil had the lowest market share of 15%.

In 2014, the situation changed slightly. The amount of Paracetamol remained unchanged, and the smallest share was occupied by Ophthalmic suppositories, wich were put on the market in this year. The price of Paracetamodium remained the lowest, although in the foreign currency (US dollars) it has tripled.

In 2015, the situation was repeated. Paracetamol was the leader in the market, and the smallest share had a product that only appeared on the market -Diclofenac (5%).

In 2016- 2017, the situation remained unchanged. This time, Metronidazole had the smallest share (4%), while the sales of Paracetamol declined to 23%.

If we evaluate products in terms of price, then we can say that for the entire period from 2013 to 2017 the most expensive product remained Anusol, and the cheapest Paracetamol.

After analyzing all data, we can calculate the cost of production and export revenue, and as a result, calculate the effect and effectiveness of the export transaction (Appendix M).

As can be seen from the Appendix M, selling suppositories to the Republic of Belarus since 2013 is effective. In the period of 2013-2015, the efficiency was within the range of 1,20-1,25. After the company began selling Metronidazole the efficiency grew to 1,39 and increased to 2017 year (1,42).

In addition, we can say that in 2017, the effect of exports increased almost 3 times compared with 2013.

For a better assessment of the company's competitiveness it is worth considering its place on the market, among direct competitors, producers of similar product.

On the Belarusian market, PJSC "MONPHARM" is represented by such suppositories as: diclofenac, methyluracil, metronidazole, ichthyol, anusol, paracetamol, nystatin, ophthalmic suppositories and Belladonnae extract.

The main producers of such products in the market are the following producers: JSC "NIZHPHARM" (Russia), Pharmaprim Ltd. (Moldova), KRKA (Slovenia), Moscow FF (Russia) and UPSA (France).

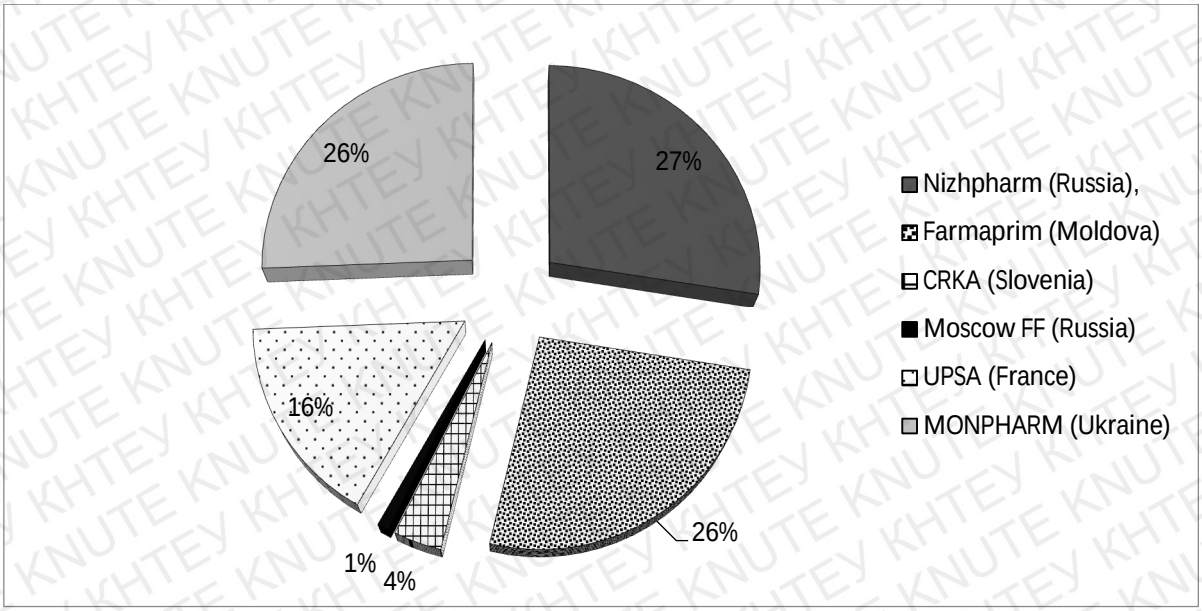


Figure 2.15. Share of enterprises for the production of suppositories in the pharmaceutical market of Belarus in Q3, 2018, %

Source: compiled by the author based on [74]

Thus, it can be concluded that the state-owned enterprises does not compete with PFMFs in this area.

After analyzing of the pharmaceutical market in Belarus and exploring the volume of wholesale purchases by pharmacies of the country, the main competitors in terms of the quantity of products can be identified (Figure 2.15).

These enterprises produce a wide range of suppositories on the Belarusian market, interwoven with the set of products presented by PJSC "MONPHARM". The next is UPSA (France), although its position is rather uncertain. The point is that such a significant share of the enterprise owes the sale of only one type of product - efferalgan (analogue of paracetamol produced by PJSC "MONPHARM"). The remaining enterprises, which occupy a smaller share, are also represented by only one type of

suppositories, therefore they will not participate in the assessment of the competitiveness of the enterprise.

In general, considering the pharmaceutical market of Belarus and in general, it is important to pay attention to the peculiarities of pricing on it. Its main differences are:

- regulated pricing system for all medications on a regression scale; the share of state pharmacies is 50% of the market;
- all major pharmacy networks are affiliated with distributors;
- only state pharmacies serve recipes that are paid at the expense of the budget;
- the share of pharmaceuticals of domestic production - about 50% of the market [4].

Market has a strict differentiation in the cost of drugs: domestic producers belong to the low and medium-low segments, foreign - to the expensive segment. In this regard, the difference in prices is very noticeable. So, if the average price of Belarusian producers is 1,1 US dollar (in wholesale prices), the average price of foreign producers is 4 US dollars (in wholesale prices). Thus, prices differ 3,6 times [89, p. 7].

Therefore, in order to better assess the place of the company of PJSC "MONPHARM" among its direct competitors, it is necessary to analyze the prices of the products of each of them and, on the basis of this, calculate the Competitive Price Index.

Table 2.8

Analysis of prices, quantities and major manufacturers of suppositories sold on the Belarus market in Q3, 2018

	Product	MONPHARM (Ukraine)				JSC "NIZHPHARM" (Russia)				Pharmaprim Ltd. (Moldova)			
		P	Q	%	IPC	P	Q	%	IPC	P	Q	%	IPC
1	Diclofenac (Diclovit, Naclofen)	2,46	2070	4,93	1	3,85	2753	6,10	1,57	2,73	15776	36,72	1,11
2	Methyluracil	2,05	4911	11,69	1	2,7	4280	9,49	1,32	2,21	939	2,19	1,08
3	Metronidazole	2,81	1779	4,23	1	-	-	-	0,00	3,17	6054	14,09	1,13

Continuing of the table 2.8

	Product	MONPHARM (Ukraine)				JSC "NIZHPHARM" (Russia)				Pharmaprim Ltd. (Moldova)			
		P	Q	%	IPC	P	Q	%	IPC	P	Q	%	IPC

4	Ichthyol	2,24	6585	**15,67**	1	2,39	1338	**2,97**	1,07	-	-	-	-
5	Anusol	2,55	5196	12,37	1	2,84	6125	13,58	1,11	2,82	3285	7,65	1,11
6	Paracetamol (Cefecon, Efferalgan)	1,39	9685	23,05	1	1,89	23995	53,19	1,36	1,84	30	0,07	1,32
7	Nystatin	2,43	2787	6,63	1	4,08	3	0,01	1,68	3,28	8568	19,94	1,35
8	Ophthalmic suppositories	1,75	3584	8,53	1	3,65	6616,5	14,67	2,09	1,80	52	0,12	1,03
9	Belladonnae extract	1,67	5418	**12,90**	1	-	-	-	-	3,50	8264	**19,23**	2,09
Σ		x	42015	100	x	x	45110	100	x	x	42968	100	x

Note: The price is indicated in Belarusian rubles

Source: compiled by the author based on the calculations and on [41]

On the basis of research data (Table 2.8), it can be seen that some units of production are not represented by all manufacturers. Since the absent suppositories under the production of Nizhpharm (Russia) and Ichthyol under the production of Pharmaprim (Moldova) do not occupy more than 20% of the products of other producers, these enterprises can be taken into account.

Table 2.9

Calculation of the Competitive Price Index for enterprises MONPHARM (Ukraine), Nizhpharm (Russia) and Pharmaprim (Moldova)

	Product	**IPC1**	**IPC2**	**IPC3**
		IPC1*Q1	IPC2*Q2	IPC3*Q3
1	Diclofenac (Diclovit, Naclofen)	2070	4315,50	17535,74
2	Methyluracil	4911	5634,54	1009,54
3	Metronidazole	1779	-	6817,57
4	Ichthyol	6585	1427,60	-
5	Anusol	5196	6821,57	3632,82
6	Paracetamol (Cefecon, Efferalgan)	9685	32564,70	39,64
7	Nystatin	2787	5,04	11543,99
8	Ophthalmic suppositories	3584	13800,13	53,34
9	Belladonnae extract	5418	-	17308,15
Σ		42015	64569,08	57940,79
Index		1	1,43	1,35

Source: compiled by the author based on the own calculations

As a result of calculations (Table 2.9), it can be concluded that the best indicator of IPC has PJSC "MONPHARM" - 1, which indicates its highest competitiveness. If we consider this indicator in combination with the sales volume, we can reach the following conclusion:

- PJSC "MONPHARM" has the lowest IPC and lowest sales (although the difference is not significant), which suggests that in the case of product quality improvement or its better advertising, the company can increase sales volumes and the price of it.

We should also pay attention to products that are not represented by any other manufacturer on the market of Belarus, namely - Suppositories of pumpkin seed oil and Mumiyo.

Thus, it can be concluded that PJSC "MONPHARM" has rather good positions, as well as among the general competitors, and unsurpassed positions among direct competitors, due to the lowest prices and the presence of unique products that are not imported by any foreign and produced by a domestic manufacturer on the pharmaceutical market of Belarus.

CONCLUSIONS TO PART 2

PJSC "MONPHARM" is the leading pharmaceutical company in the Cherkassy region, so it is not surprising that the company has excellent financial reporting results. After assessing the indicators of liquidity, profitability and financial stability, we can conclude that the company has all the possibilities for more stable development and profitable activity.

If we evaluate the future of the company in the international market - we should pay attention to many different factors. Firstly, since this is one of the most profitable sectors of the international economy, there is a lot of competition in the market. The first places are the United States (64,1% of the market) and Europe (18,1% of the market). Since PJSC "MONPHARM" does not occupy a leading position in Ukraine, it will be difficult for the company to compete with world competitors. In addition, the

global economic crisis still exists, but government reports still show that spending on healthcare per capita continues to grow.

Also important is the existence of health insurance. Decrease in consumer disposable income will have an impact on those countries that use the health insurance model, especially where a partial payment is required. Moreover icreased pressure from shareholders has caused consolidation of the industry: more mergers and acquisitions will take place over the next few years.

The positive moment for the pharmaceutical industry, but not for society, is the aging of the population and the continuous growth of diseases, which is causing a steady increase in demand for pharmaceutical products.

One should also pay attention to the constant development of R&D, which significantly affects the level of competitiveness, because those enterprises that independently engage in research and finance them, can offer the market a unique product and gain a significant market share.

The global factors influencing the pharmaceutical industry include the pricing of Donald Trump and GST implementation in India. It should be also considered closer the factors that are inherent only for the country of residence of the enterprise. The first is the impact of European integration of Ukraine on changing production standards. The next fact is the volatile exchange rate of the national currency, which has a significant impact on the export activity of the company.

Thus it can concluded that since the structure of the pharmaceutical market is rather complex and competitive in order to take advantageous positions, the company should choose a correct strategy. PJSC "MONPHARM" has chosen the strategy of price competition. In the Belarusian market, it sells a wide range of products at the lowest price among all competitors, in addition there are certain types of drugs that do not exist at all in the market and this company is a unique supplier.

PART 3. THE WAYS OF INCREASING THE INTERNATIONAL COMPETITIVENESS OF PJSC "MONPHARM" IN THE MARKET OF PHARMACEUTICAL PRODUCTS

3.1. Reserves of international competitiveness improvement of pharmaceutical industry enterprise

Increased demand for pharmaceuticals, their volume and range, the economic attractiveness of the pharmaceutical business, the number of business entities and, consequently, increased competition, encourage commodity producers of this specific product to implement new strategies and programs aimed at increasing the competitiveness, conquering and maintaining a stable competitive position [45, p. 4].

As already noted at the moment, PJSC "MONPHARM" is characterised rather by good financial performance of the company and an excellent market strategy for Belarus, which in total says about its high competitiveness. However, company should not stop at this and has to consider new ways to increase their competitiveness in the international market (Figure 3.1).

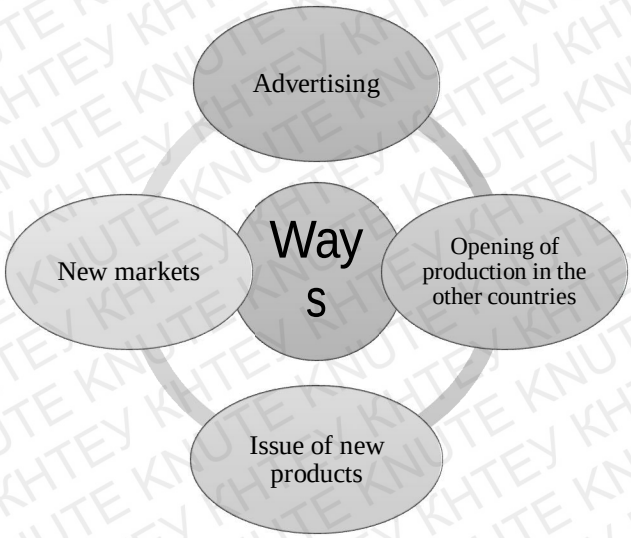


Figure 3.1. Ways of increasing the competitiveness of PJSC "MONPHARM" in the international market

Source: compiled by the author

So the first option for increasing competitiveness can be the opening of production in Belarus. Its main advantages are economy in transportation of products. In the case of

supply under the most favorable (cheapest) terms of delivery, such a change does not offer any particular advantages, but if considering the possible benefits in the future, this will allow you to reduce the cost to the buyer for transportation. When concluding an agreement with a distributor, a favorable transportation price allows you to negotiate a higher price of the product or, conversely, make the total cost of the product smaller, which will change the distributor mark up for pharmacies and hospitals. In the case of a price drop, the competitiveness of the product on the market will increase.

Despite such advantages, this variant has several drawbacks. First, the opening of a new plant is a rather complicated procedure, which requires a lot of permissions and documents. For example, you need to obtain a license for the pharmaceutical activity in Belarus. For this, it is necessary to pay the state fee (the size of the state duty 245 Belarusian rubles or about 126 US dollars).

A particular problem may be the lack of awareness in the legislation of a foreign state in this area.

The second opening of the plant is a significant expense, especially if we talk about pharmaceutical equipment (Table 3.1) and skilled labor. You also need to rent a building (about 16 Belarusian rubles per square meter on the outskirts of cities).

Table 3.1

The cost of basic types of pharmaceutical equipment, euros

Type of equipment	Cost per unit, euros
Sterilization and washing equipment	300 – 23000
Equipment for the manufacture of medicinal forms	1000-2000
Equipment and inventory for packaging of drugs	1000-4000
Pharmaceutical production lines	10 000

Source: compiled by the author based on [70]

Another opportunity to improve competitiveness is the production of new products. This method includes two possibilities:

- investing significant funds in R&D to develop and manufacture new, unique products;

- to expand its range through the production of generics.

In recent years, spending on research and development of innovative products has been significant increasing, and the profitability of R&D investments has been decreasing.

A distinctive feature of most R&D projects is the complex predictability of the final results of research and their possible commercialization (bringing an innovative product to the market in order to obtain an economic effect).

Creating innovative products is becoming increasingly costly and difficult process. According to the European Federation of Pharmaceutical Industries Associations - EFPIA, the average cost of developing a new drug is about 1,5 bln. US dollars (1,2 billion euros), and the time from the start of drug development to market entry reaches an average of 12–13 years (Table 3.2). In addition, on average, from of 10 000 molecules that go through all stages of development, preclinical and clinical studies, only 1 or 2 receive marketing permission [83].

At the same time, the profit from the implementation of successful innovation projects is, as a rule, so great that it covers the costs of all other failed developments.

Table 3.2

Expenditure of leading pharmaceutical companies on R&D during 10 years, mln. US dollars

Pharmaceutical company	Number of new drugs	10 years R&D expenditure, mln. US dollars	R&D per preparation, mln. US dollars
Abbott	1	13183	13183
Sanofi	6	60768	10128
AstraZeneca	4	38245	9561
Hoffmann-La Roche	8	70928	8866
Pfizer	10	77786	7779
Wyeth	3	22702	7567
Eli Lilly	4	26710	6678
Bayer	5	33118	6624
Schering-Plough	3	18845	6282
Novartis	10	60727	6073

Source: compiled by the author based on [9]

As can be seen, the significant costs of R&D may not be justified; therefore, to increase the productivity of R & D development, it can organized joint programs with various academic institutions or other pharmaceutical companies. In addition, if we consider this possibility in the framework of the activities of PJSC "MONPHARM", it is too much money for such a small enterprise.

In turn, the production of generics has more advantages, so its low price compared to the original drug is easy to explain. The cost of the original drug includes many years of work on the creation, development, large-scale clinical trials and implementation. Therefore, the government makes it possible for such a company to redeem its investments and obtain a profit by issuing a patent, a kind of "security certificate" that protects against the appearance of competitors for the release of this drug. As for the production of generics, these costs are absent, but it is necessary to prove the biological and therapeutic bioequivalence of the drug, to conduct minimal clinical trials and to market the reference product, generic relative to the original.

In fact, the production of generics is possible after the expiration of patents on the original drugs.

Exactly the release of generic drugs, the price of which can be 16-20 times lower than the original, makes many drugs available to the general population.

All of the above costs arise only at the initial stages of production. However, in the case of an enterprise entering an external market, there is a need for registration of this product under the new legislation, which often requires significant financial expenses.

One more option to increase the competitiveness of the enterprise at the international level is the emergence of new markets. PJSC "MONPHARM", as mentioned in the previous chaper (Part 2.3), is already engaged in the sale of nine types of drugs on the Belarusian market, and has been operating there for about twenty years. It is clear that in this situation PJSC "MONPHARM" formed a stable relationship with distributors and a certain image among consumers. Therefore, the best option is to maintain sustainable development and possibly increase sales, or partially raise the price, because the company sells products at the lowest prices in the market.

In order to enter a new markets, you need to pay attention to certain criteria:

1) Territorial placement (proximity of the market, minimum transportation costs);

2) Legislation of the state (operating conditions for foreign companies, customs payments, quotas);

3) Economic stability;

4) Features of quality standards;

5) Market capacity;

6) The level of competition in the market.

If we evaluate the market on the basis of territorial proximity, then it is clear that the best option for PJSC "MONPHARM" is to enter the EU market or the CIS market.

The pharmaceutical market of post-Soviet countries is about 2,2% of the world market. The most capacious (more than 70%) is the Russian market, although rather high growth rates show the markets of almost all other countries of the post-Soviet space. Russia, Ukraine and Kazakhstan are the leaders in the volume of markets in value and in natural terms.

The level of drug use in post-Soviet states is lower than in economically developed countries. The substantial difference in consumption volumes is primarily attributable to differences in the average per capita income (Table 3.3) [27].

The peculiarities of the pharmaceutical market of Russia include:

- a significant share of state purchases of pharmaceuticals (40%) and import of pharmaceutical products (75% of the market);
- active development of pharmacy networks (30%) and a small share of foreign companies in the pharmacy network (1%);
- a sharp decrease in the number of distributors - TOP-3, which is 55%;
- insufficient competitiveness of the pharmaceutical industry (traditional drugs are dominant);
- high probability of occurrence of visible and hidden barriers for the import of medicines from other countries.

The Russian pharmaceutical industry has about 550 enterprises. The industry is characterized by a high concentration of producers. The share of the 20 largest of them accounts for about 54,8% of all Russian manufactured medicines [27].

Table 3.3

Features of the pharmaceutical market of Belarus, Kazakhstan and Russia in 2017

Market Indicators	Belarus	Kazakhstan	Russia
Population, mln. people	9,59	18,29	146,88
GDP per capita, US dollars	17 836,25	24 402,74	25 740,37
Production, mln. US dollars	520	633,378	2 451,817
Number of pharmacies, units	3531	3970	30 264
Income of the population, US dollars / month / person	438	450	670

Source: compiled by the author based on [42]

The third largest market in the post-Soviet space (after Russia and Ukraine) is the Kazakhstan market.

The Kazakhstan pharmaceutical market is developing quite dynamically, but this is mainly due to the import component. Pharmacy industry in Kazakhstan is more significant concentration than in the Russian Federation. However, analysts say that in the medium term, the pharmaceutical market of Kazakhstan will preserve, mainly, the import component [27].

The pharmaceutical industry in Kazakhstan is represented predominantly by generics on the basis of imported substances and traditional inexpensive medicines focused on the domestic market and the CIS market.

At the same time, Kazakhstan's pharmacy is characterized by:

- insufficient competitiveness of domestic pharmaceutical products, which is represented predominantly by generics on the basis of imported substances and traditional inexpensive drugs, oriented on the domestic market and the market of post-Soviet countries;
- deterioration of the domestic industry's position in the domestic market as a result of shifting the population's demand towards more expensive innovative pharmaceutical products;
- the cheap and narrow domestic assortment of drugs, the expansion of which requires investment.

The next important pharmaceutical market in the CIS is the Belarusian pharmaceutical market (the features of this market were discussed in the previous chapter (Part 2.3).

One of the world's leading regional markets is the EU pharmaceutical market. There is some regional segmentation in the European pharmaceutical market. As it was discussed in the previous chapter (Part 2.2), the leaders of the European market are four countries, the total sales of which are almost 50% of the market. These are Germany, France, Italy and Spain. The leader in terms of sales is the market of Germany, in the second place - France, and the smallest is the Spanish market.

The five leading pharmaceutical markets of the countries of the former socialist camp are represented by the following countries: Poland, Romania, Hungary, Czech Republic and Slovakia.

In recent years, there has been a tendency in the pharmaceutical market of the EU, which is associated with a reduction in government reimbursement costs and the development of new original drugs.

Due to the expiration of the patent protection period for many blockbusters in the next decade, their less expensive analogies - generics will appear on the market. The growth of the generic market in Europe has an impact on the development of the European pharmaceutical industry. Replacing branded products with generics has become a popular measure for governments in European countries to reduce public spending on medicines. It is expected that over five years, more than 200 generic names will be released to the market.

EU countries have some differences in generic market regulation policy. In Germany, such drugs become available from the moment of obtaining a trade license. Delay in their withdrawal into the market of drugs in other countries due to the time required by the regulatory authorities to make a decision on pricing and reimbursement of drugs. The share of generic drugs in the pharmaceutical markets of the EU in monetary terms ranges from 25% to 90 - 95%. The high level of penetration of generics is observed in Germany (85%), Poland (85%) and France (80%).

In some countries, the cost of generics is regulated by public authorities (France, Poland, Greece, Portugal, and Hungary). In other countries pricing occurs under the influence of competitive forces (Germany) [34].

Obstacles to free competition on the EU pharmaceutical market:

- generic producers (equitable market participants) encounter problems in the way of registration and a lunch of their reproduced drugs. This harms the competition in the pharmaceutical market;
- there are barriers in registering drugs in EU countries and obstacles to free trade in drugs [12].

In addition to market capacity, an important criterion for entering the market is the peculiarities of the state's legislation in the field of the export, sale of medicinal products and the establishment of quality standards.

If we talk about EU member states, there is a rather complicated procedure for obtaining export permits for third countries. In general, this procedure includes:

1. Importing authorization.
2. Marketing authorisation.
3. Labelling and packaging provisions.
4. Control of each batch.

1. Importing authorization

Importers of medicinal products into the EU must obtain an authorisation which is granted by the competent authority of the importing Member State.

2. Marketing authorisation and register of medicinal products

Medicinal products may only be placed on the EU market when a marketing authorisation has been issued by the competent authorities of a Member State or by the European Medicines Agency (EMEA) [29].

Marketing authorizations are carried out in accordance with Directive 2001/83 / EC (Appendix N). From here it is possible to notice that the procedure for filing a document for obtaining a license and its evaluation stages are rather complicated, besides the cost of this procedure is also quite large (Table 3.4).

Table 3.4

Fees for marketing authorisations in the European Union, euros

Fee type	Human medicines
Marketing-authorisation application (single strength, one pharmaceutical form, one presentation)	From 286 900
Extension of marketing authorisation (level I)	86 100
Type-II variation (major variation)	86 100
Scientific advice	From 43 000 to 86 100
Annual fee (level I)	102 900
Establishment of MRLs	-

Note: Fees are adjusted every year for inflation.

Source: compiled by the author based on [30]

3. Labelling and packaging

Before granting a marketing authorisation for a medicinal product, the Member State's competent authority must check that the outer packaging, the immediate packaging and the package leaflet comply with the following provisions.

4. Control of each batch

Each production batch of medicinal products imported from third countries has to undergo a full qualitative analysis, a quantitative analysis of at least all the active substances and all the other tests or checks necessary to ensure the quality of medicinal products in accordance with the requirements of the marketing authorisation. These analyses, tests or checks fall under the responsibility of the qualified person providing his services to the importing authorisation holder [29].

In addition to import and marketing requirements, the attention should also be paid to the import duties and internal taxes that exist within the EU. If we consider them according to the countries of the European Union, which have the greatest territorial approximation to Ukraine, then we will get the following results (Table 3.5):

Table 3.5

Import duties and internal taxes in the EU, %

Indicator, %	Germany	Poland	Spain	France	Romania	Hungary	Czech Republic	Slovakia

Third country duty	0	0	0	0	0	0	0	0
Airworthiness tariff suspension	0	0	0	0	0	0	0	0
VAT	19	8	4	20	9	5	15	10
Excise	-	-	-	-	-	-	-	-

Source: compiled by the author based on [29]

The next alliance, which has its differences in the regulation of foreign economic activity, is the Eurasian Economic Union. When entering the market of the member countries of the Eurasian Economic Union, attention should be paid to the existence of the Single customs tariff. According to it, Belarus, Kazakhstan, Russia, Armenia and Kyrgyzstan have a single import duty for medicines (in percentage of customs value) - 10%.

As for the registration of products, there are certain differences. In general, the cost of registration in the member countries of the EAEU fluctuates within (Table 3.6):

Table 3.6

The cost of conducting an adjudication of medicines during the registration prosses in the member countries of the Eurasian Economic Union, US dollars

Indicator	Cost, US dollars
Original one-component drug	3 843-4 630
Original multicomponent drug	4 173-4 950
Reproduced one-component drug	3 212-4 044
Reproduced multicomponent drug	4 240-5 060
Bioanalogical one-component drug preparation	3 970-4 740
Bioanalogical multicomponent drug preparation	4 145-4 975

Source: compiled by the author based on [11]; [19]; [72]

The last possible option for increasing the competitiveness of products of PJSC "MONPHARM" is to conduct an advertising campaign.

Its implementation can take place in three ways:

1) Advertising on the market of Belarus;

2) Access to the new market and advertising on the EU market;

3) Access to the new market and advertising on the markets of the CIS countries.

If we consider the first option - an advertising option in a well-known market, we should consider the launch of new products on the market and its advertising, or the promotion of existing products. Since PJSC "MONPHARM" has been in the market of Belarus for about 20 years, it supplies a wide range of products and has a stable income, advertising pf the already existing products will not give much results, and the market entry with the new product may not be profitable due to the already existing wide assortment.

Therefore, the best option will be to enter a new market and conduct an advertising campaign there.

In the post-Soviet countries, such as Russia and Kazakhstan, the state regulation of the advertising of medicinal products is as follows:

Kazakhstan

- advertising of medicines, medical products and medical equipment is carried out with permission;
- advertising should be authentic, understandable without any special knowledge. It is not allowed to compare with other medicines, medical equipment;
- advertising of medicines can be placed and distributed in specialized medical editions, other mass media and health organizations;
- advertising of prescription drugs can only be carried out in specialized publications intended for medical and pharmaceutical workers [1].

Russian Federation

- advertising of prescription drugs is not allowed;
- advertising of non-prescription drugs is placed both in specialized publications for doctors and pharmacy workers, as well as in periodicals, on radio and on television;
- many manufacturing companies place advertising materials (posters, leaflets, stands, etc.) in medical institutions and pharmacies in the form of stands dedicated to the activities of manufacturing companies or diseases (posters, calendars).

There are many more restrictions and features in the field of advertising of medicinal products (Appendix O) in the legislation of the European Union countries, rather than in the CIS countries.

Czech Republic: non-prescription drug advertising, including reimbursable drugs, is allowed in all media. Restrictions do not apply to drug advertising for healthcare and veterinary professionals. At the same time, only manufacturers, distributors or their representatives can distribute such advertising.

France:advertising of non-reimbursed non-prescription drugs is allowed in all media. Drugs included in the reimbursement system, as well as some non-reimbursed over-the-counter drugs, cannot be advertised to the general public.

In the segment of prescription drugs, advertising aimed at the end user is allowed only for vaccines (vaccination campaigns).

Germany: advertising of non-prescription drugs (including herbal medicines) is permitted in all media. Limitations of advertising apply to certain therapeutic areas. Initially, 10 groups of diseases were approved, later the list was reduced to 4 groups. These include some infectious diseases, drug addiction (except nicotine), pathological complications during pregnancy, childbirth and the postpartum period.

Hungary: in general, advertising over-the-counter medicines is allowed, but there are a number of limitations. An advertising reminder is allowed, which should contain the trade name of the drug and the name of the trade license holder.

Italy: non-prescription drugs advertising is permitted in all media. Conduct advertising campaigns can only trade license holders. Advertising and the provision of information on the Internet are also permitted. The Ministry of Health should be informed regarding the content of the advertisement.

Poland: non-prescription drugs advertising is permitted. In 2007, the legislation governing the advertising of medicines, made changes, which restricted direct advertising of reimbursed drugs at points of sale (in pharmacies). Since in Poland drugs are not reimbursed, this restriction does not affect them.

Spain: in Spain, advertising of non-prescription products is allowed, the cost of which is not reimbursed by the state [1].

Thus, as a result of a detailed analysis of possible ways to increase the competitiveness of PJSC "MONPHARM", it can be identified the main criteria (Table 3.7) by which these methods can be evaluated and choose the most optimal among them.

Table 3.7

Assessment of ways to increase the competitiveness of PJSC "MONPHARM" in the international pharmaceutical market

Ways	Existence of experience in this field	Low cost	Simplicity to achieve the goal	Rapidity of obtaining result (income)	Revenue	Result
Advertising	+	±	+	+	±	4+
Entering a new market	+	±	±	+	±	3,5+
Issue of new products	+	-	-	-	+	2+
Opening of production in the other countries	±	-	-	±	±	1,5+

Notes:"+" - positive value of the factor, in comparison with other methods;
"±" - is middle value of the factor, in comparison with other methods;
«-» - negative value of the factor, in comparison with other methods.

Source: compiled by the author.

Thus, it can be concluded that the most effective ways for the enterprise to increase its competitiveness is to enter a new market and application of advertising there, because of the low cost, simplicity to achieve the goal and rapidity of obtaining result (income) comparing with other options.

3.2 Development of a complex of measures for increasing the international competitiveness of PJSC "MONPHARM"

Based on the options (discussed in the part 3.1), the export activity will be the best for the future development of the enterprise.

Based on the criteria of territorial proximity, the simplicity of the export transaction, the cost of obtaining a license and advertising, the volume of the market, the state policy regarding the sale of generics, the level of concentration of the market, the number of pharmacies and population, the best option is to enter the market of the CIS countries, namely the market of the Republic of Kazakhstan.

Since PJSC "MONPHARM" has proven itself as a leader in the production and sale of suppositories on the Ukrainian market, and took a position on the Belarusian market due to the same type of product, it is obvious that for the entry into the market of Kazakhstan, PJSC "MONPHARM" should take advantage of the same strategy.

In addition, suppositories are unique medicines, because their actions are much faster and more effective. They do not create a load on the digestive system and are safe for children.

The assortment of suppositories manufactured by PJSC "MONPHARM" are (Figure 3.1):

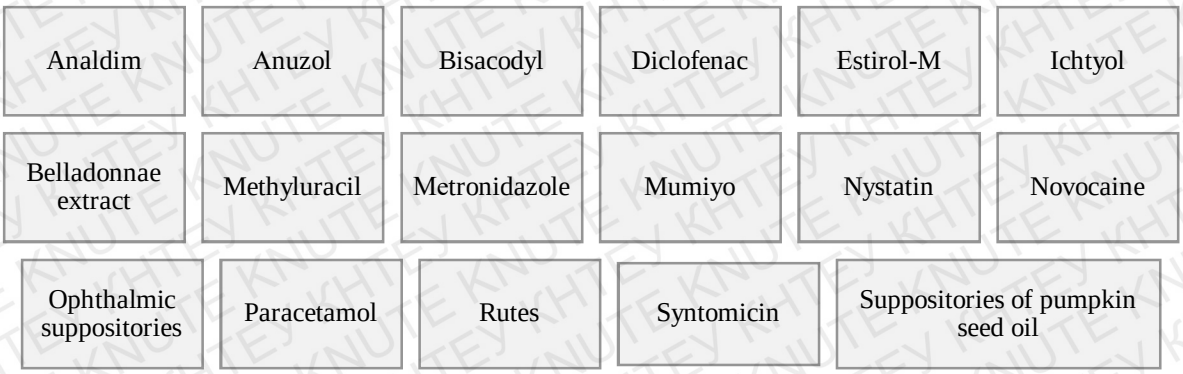


Figure 3.1.The scheme of the main suppositories, produced by PJSC "MONPHARM"

Source: compiled by the author based on [59].

If we analyze the market of Kazakhstan, then we can see that the main competitors in this field of products are enterprises: NIZHFARM OJSC and FARMAPRIM SRL. In general, there are 21 companies involved in the sale of suppositories in the Kazakhstan market, of which less than 20% of the market is occupied by domestic companies.

In order to successfully enter the market, it is necessary to pre-analyze the product range of the competitor (Figure 3.2).

NIZHFARM OJSC presents on the market 13 types of suppositories, of which 4 are direct analogues of PJSC "MONPHARM". As for FARMAPRIM SRL, this company is represented by 11 kinds of suppositories, among which 5 are direct analogues.

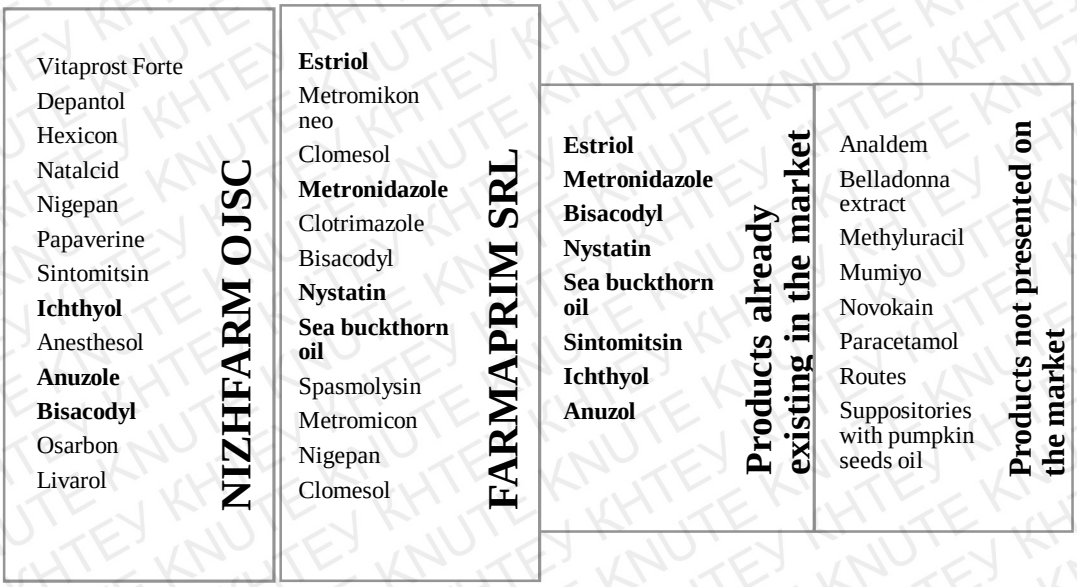


Figure 3.2. Scheme of analysis of suppositories sold by competitors, and those that are not represented on the market

Source: compiled by the author based on [59]; [75]

Thus, we can conclude that the best way to enter the market is to present products whose analogues do not exist in the Kazakhstan market yet. Among the available options for drugs, the best among them is Methyluracil, since it has a wide and unique range of applications.

Composition of the medicinal product:

Active substance

1 suppository contains:

- methyluratsil - 0.5 g;
- excipients: solid fat.

Indication:

The drug is prescribed for agranulocytic quinine, alimentary-toxic aleukius, chronic benzoin intoxication, leukopenia, due to chemotherapy of tumors, radiotherapy

and radiotherapy, and other factors. They are also used for healing wounds, trophic ulcers, ulcers in the stomach and duodenum, chronic gastritis, pancreatitis, rectits, sigmoiditis, ulcerative colitis.

In order to export to the market of Kazakhstan it is necessary to fulfill a number of requirements. First, it is necessary to register it for sale within the Republic of Kazakhstan. Evaluation of the safety and quality of medicines is carried out by a method of serial assessment of the safety and quality of medicines having GMP conformity certificates for medical products that have certificates of conformity with the requirements of the quality management system for manufacturing medical products ISO 13485, GMP. As a result, registration of the conclusion on safety and quality of products is carried out in the register of conclusions on safety and quality of products [57].

Evaluation of safety and quality by serial evaluation includes [57]:

1. Conclusion of a contract for work on the assessment of safety and product quality;

2. Submission of an application for the safety and quality assessment of products;

3. Provision of documents;

4. Examination of the documents provided when submitting an application to conduct a safety and quality assessment of products, their completeness and accuracy of information;

5. Selection of product samples;

6. Testing of product samples;

7. Registration of the conclusion on safety and quality of products in the register of conclusions on safety and quality of products;

8. Issuance of an opinion on the safety and quality of products to the applicant;

9. Testing product samples once every two years by withdrawing from the market.

Accordingly to the Directive of the Ministry of Health of the Republic of Kazakhstan on pricing for the examination and re-registration of medicinal products, in the case of the export of Methyluracil, which is a multicomponent generic, the registration will cost 1 652 951 KZT [19].

After that it is needed to work with the sole distributor of pharmaceutical products - SC-Pharmacy. The basic directions of its activity are:

- improving the procurement of medicines;
- consideration of tenders;
- conducting auctions (the tender is held on the principle of the reverse auction);
- optimization of logistics [68].

Before the start of the auction, it is very difficult to determine the price of the product, which then will be sold to pharmacies and medical facilities. "SK-Pharmacy" owns the marginal price of the product (the price at which begins the decline in the cost of the medicinal product at the auction)

In general, marginal drug prices are derived from cost of production and logistics costs. To these cumulative costs, a wholesale markup in the amount of not more than 15% (in 2018 -7-5%) is charged.

In this way, the main expenses of the exporter should be calculated (Table 3.8). First we need to determine the cost of transporting the cargo. The distance between Monastyryshche (Cherkasy oblast) and Aktobe (Republic of Kazakhstan) is 2 334 km. The cost of transportation of a cargo at this distance per one delivery is 157 716 UAH[1] [16].

The cost of work of a loader is 80 UAH / hour. It is planned that a load will be carried out by 3 loaders within 2 hours. Thus the cost of a load on one truck will be 480 UAH.

The cost of cargo insurance is - 0,35% of the transportation cost (for medicines).

After transporting products to the warehouse in the city of Aktobe (Kazakhstan), the products will be delivered to the largest cities of Kazakhstan. According to the medical platform "MedElement", the number of pharmacies in the largest cities is (Table 3.9):

Table 3.9

Structure of pharmacy placement in the largest cities of Kazakhstan, units

[1] Provided that the exchange rate is: 1 USD=28 UAH

City	Number of pharmacies
Almaty	870
Astana	442
Shymkent	442
Pavlodar	174
Aktobe	135
Karaganda	122

Source: compiled by the author based on [54]

Thus, the total number of pharmacies to be supplied from the "SK-Pharmacy" will be 2 185, and if we take into account the fact that the average number of packages of suppositories for 1 pharmacy is 6,5 packages (from 4 to 9 packages, since the product only enters the market), then we can assume that the delivery size to the warehouse of "SC-Pharmacy" will be 14,250 packages per month. Therefore, we can conclude that to transport such quantity of goods it will be enough to use one truck.

Table 3.8

The calculation of the marginal price of Methyluracil, UAH

Costs	Value, UAH
Cost (1 package)	25,00
Cost of production (1 truck)	356 250
Cost of the load	480
The cost of insurance	1 246,88
Total cost of cargo transportation	157 716
Total	515 692,88
Wholesale surcharge - 7%	20282,21
Sum	551 791,38
Marginal price (1 package)	39

Source: compiled by the author based on calculations

Thus, a marginal price of Methyluracil, which will be set by SC-Pharmacy, is 39 UAH.

It should be noted that one of the most important aspects of entering the market is the holding an advertising campaign. In accordance with the directive of the Ministry of Health and Social Development of the Republic of Kazakhstan dated February 27, 2015 No. 105 “On Approval of the Rules for Implementing Advertising of Medicinal Products and Medical Equipment”, advertising is carried out after the National Center

has assessed advertising materials for compliance with the legislation of the Republic of Kazakhstan in the field of advertising in the provision of Conclusions on the compliance of advertising with the legislation of the Republic of Kazakhstan [57].

This assessment is carried out at a certain cost, depending on the place of advertising and the target audience (Table 3.10).

Table 3.10

Price list for evaluation of advertising materials for medicines, medical devices and medical equipment in the Republic of Kazakhstan, KZT

Name of services (products)	Unit of measurement	Price in KZT excluding VAT	Price in KZT with VAT (12%)
Evaluation of an advertising article	1 article	24 595	27 547
Evaluation of the advertising video for the public	1 video	22 448	25 142
Evaluation of the print advertising module for the public and specialized publications	1 module	21 912	24 542
Evaluation of an advertising audio clip for the public	1 audio clip	17 361	19 444

Source: compiled by the author based on [57]

In our case, we need an estimate of the advertising article and an assessment of the advertising video for the public.

In general, the process of passing an advertising campaign will be carried out in several stages.

1. Launch a TV banner ad on one of the most popular TV channels in Kazakhstan.

For this, the Commercial Television Channel is best suited. KTK is a dynamically developing television company, which occupies a leading position in film screenings, in the production of its own programs and film production, and also leads in informational broadcasting.

KTK received the status of a national broadcaster in Kazakhstan and became a recognized leader in the country's television market. At the moment, technical and technological equipment allows broadcasting throughout the Republic of Kazakhstan, covering 98,3% of the population of the Republic.

“TV-banner” type advertising is a small television advertisement in the form of dynamic titrating on the screen and images located at the bottom of the screen, incorporating animation and 3D objects (without sound).

This type of advertising has many advantages:

- the animated 20-second video at the bottom of the screen will be shown directly during movies, TV shows, etc., it will not be possible to "switch", unlike the block of video advertising;

- the viewer immediately reacts to the additional animation at the bottom of the screen and, if he is interested in the beginning, the video will be viewed in full;

- relatively low cost of advertising, ease of production of the banner, the speed of placement;

According to the official advertising agencies, the placement of such advertising is:

- the cost of hire of one day - from 3000 KZT - 16 issues - every hour;
- show time: from 7:00 to 01:00 [2].

It is planned that this TV-banner will be formed in the form of placing the name of the company on a white screen, which constantly and dynamically changes the logo of the company "You will not notice how you recover." This ad will be aimed at the general public to build trust in a company that they do not know yet. As a result of the fact that viewers will often see an ad unit with the name of the company, they will have the feeling that this enterprise has long been familiar to them. As a result, they will more trust in the recommendations of doctors and pharmacists (because in Kazakhstan you can buy medicine without a prescription).

2. Placement of advertising and articles in specialized periodicals.

The international professional journal Medicine, which is published by KAZAKHSTAN Healthcare Publishing House, will be featured as a specialized magazine. This magazine is published monthly and is intended for practitioners,

scientists, workers of the sanitary-epidemiological service, health managers and a wide range of professionals working in the field of medicines, medical products, medical equipment.

The journal is included in the list of scientific publications recommended by the Committee on Supervision and Certification in the Field of Education and Science [69].

Circulation - 5000 copies. The magazine is published 12 times a year.

The cost of posting articles in this magazine is (Table 3.11):

Table 3.11

Price list for publication of the article in the international professional journal "Medicine" for 2018, KZT

Types of advertising	Price in KZT
Base rate for 1 sq.cm ad space	343
The cost of placing modular advertising (for 1 sq.cm):	
Title page	300
last page of the first journal	550
journalistic pages (on black and white pages)	500
journalistic pages (on color pages)	625
design	free
Base rate for posting articles and interviews (for 1 sq.cm)	1025

Source: compiled by the author based on [69]

It is planned that every month (within four months) in this magazine articles about PJSC "MONPHARM" will be published.

The first issue will be the article "PJSC" MONPHARM - a new player on the Kazakhstan market ", which will contain general information about the company, its history, strengths, prospects and features of the range of products.

The following promotional articles (which will be published the next 3 months) will be blocks with information about the products that are already on the market, so that the specialists in the field of pharmacy will be aware of the product availability and could recommend it to their patients.

All promotional materials will be prepared by employees of PJSC "MONPHARM", which will not require additional expenses.

After promoting products that have no analogues in the market, the company can already enter the market with the range of its direct competitors. As a result of the already established trust of doctors, pharmacists, purchasers, andthanks to the low prices, PJSC "MONPHARM will be able to win the market even in this more competitive segment.

Therefore, on the basis of the data above, it is possible to create a plan for the company to enter the market of the Republic of Kazakhstan (Table 3.12).

Table 3.12

The plan of entering the market of the Republic of Kazakhstan

Stages	Actions	Cost in national currency [1, 2]	Cost in USD[1]	Comments
1	Signing an agreement to assess of safety and product quality			
2	Evaluation of the safety and quality of drugs	1 652 951 KZT	4 464,78	medication
3	Apply to SK-Pharmacy for participation in the tender			
4	Conduct a tender and determine the sales price of Methyluracil			
5	Applying for a Conclusions on the compliance of advertising with the legislation of the Republic of Kazakhstan.			
	Evaluation of an advertising article	82 641 KZT	223,22	3 articles
	Evaluation of advertising video for the public	25 142 KZT	67,9	1 video
	Launching a TV-banner ad	90 000 KZT	243	8 months (every second, 9 issues)

Continuing of the table 3.12

Stages	Actions	Cost in national currency [1, 2]	Cost in USD[1]	Comments
5	Placing an article in the International Professional Journal "Medicine"	307 500 KZT	830,59	3 articles (1 article / month, 1,2,4 months)
6	Carrying out of cargo [3]			
	Cost of the load	480 UAH	17,14	

[1] Provided that the exchange rate is: 1 USD=28 UAH
[2] Provided that the exchange rate is: 1 USD=370,22 KZT
[1] Provided that the exchange rate is: 1 USD=28 UAH
[2] Provided that the exchange rate is: 1 USD=370,22 KZT
[3] Terms of delivery – DAP (Incoterms 2010)

	The cost of transportation	157 716 UAH	56 32,71	1 truck
	The cost of insurance	-	-	Depending on the value of the cargo
	General expenses	-	11 479, 34	-

Note: for deducting the cost of insurance

Source: compiled by the author based on the data mentioned before

Thus the general expenses to enter the market of Kazakhstan are 11 479, 34 US dollars.

3.3. Forecasted evaluation of the proposed measures

Taking into account the peculiarity of the Republic of Kazakhstan in the field of procurement of medicinal products (the existence of a single distributor, SC-Pharmacia), there are several options for the possible price at which Methyluracil will be marketed. Since the price of the product is set as a result of the auction to reduce the price, you can consider several forecasts for the development of events:

1) Optimistic scenario - the suppository Methyluracil will be sold at a marginal price, as none of the producers of similar products will participate in the tender.

2) Realistic scenario - as a result of the auction, will be found other competitors, as a result, the price of the suppository will drop to 29%.

3) Pessimistic scenario - as a result of the auction, there will be too many competitors, the main part of which will be domestic production (they have certain preferences), resulting in the price of the suppository will fall by more than 29%.

For a better understanding of how this or that scenario affects the company's activities, one should calculate the export efficiency for each of them.

Optimistic scenario

Table 3.13

Output data for calculating the optimistic scenario of export to the Republic of Kazakhstan, per 1 delivery

Indicator	UAH	USD[4]
Cost of products (1 package)	16	0,57
Maximum marginal price	39	1,39
Number of products	14 250	
Cost of the load	480	17,14
Transportation costs	157 716	5632,71
Insurance costs	2 082	74

Source: compiled by the author

So, based on the data above (Table 3.13), we will calculate the effectiveness of the export transaction per 1 delivery.

1. The cost of the export contract = 1,39 USD ? 14,250 = 21 241,07 USD

2. Expenses on export of products[3] = 5632,71 USD + 74 USD + 17,14 USD = 6 187,06 USD

3. Cost of production = (16 UAH ? 14 250) ? 28[4] = 8142,86 USD

4. Efficiency on the foreign market = 21 241,07 USD ? (6 187,06 USD + 8 142,86 USD) = 1,43

5. Effect on the foreign market = 21 241,07 USD - (6 187,06 USD + 8 142,86 USD) = 6 339,72 USD =177 512,22 UAH

In the case that the product advertising will be effective and the demand for products will exist, it can be assumed that the supply of drugs in the first year will remain in the same number of 14 250 packages per month, and in the next year will increase to 5-10 packages per pharmacy and will be 16 480 packages per monthin total[4].

As a result, the effect and effectiveness in the foreign market in the first and in the second year will be (Table 3.14):

Table 3.14

Effect and effectiveness of the sale of the suppository "Methyluracil"in the pharmaceutical market of the Republic of Kazakhstan, for 2 years

[3] Terms of delivery – DAP (Incoterms 2010)

[4] If the exchange rate does not change in the future - 1 USD=28 UAH

	1st year	2nd year
The cost of an export contract, USD	254892,86	275451,43
Expenditure on the export of products, USD[3]	74244,77	68762,43
Cost of production, USD	104571,43	113005,71
Efficiency on the foreign market, USD	1,43	1,52
The effect on the foreign market, USD[4]	76076,66	93683,28
The effect on the foreign market, UAH[4]	2130146,58	2623131,84

Source: compiled by the author based on the own calculations and on the data mentioned before

In order to fully assess the effect of entering a new market, the following costs should be included in the calculation: evaluation of advertising material, advertising on a television channel and in a specialized medical journal, and expenses for registration of a medicinal product (Table 3.15).

Table 3.15

Expenses on advertising and registration of the suppository "Methyluracil"

Actions	Cost in national currency, KZT[51 2]	Cost in USD[1]
Evaluation of the safety and quality of drugs	1652 951	4 464,78
Evaluation of an advertising article	82 641	223,22
Evaluation of advertising video for the public	25 142	67,9
Launching a TV-banner ad	90 000	243

[3] Terms of delivery – DAP (Incoterms 2010)
[4] If the exchange rate does not change in the future - 1 USD=28 UAH

[1] Provided that the exchange rate is: 1 USD=28 UAH
[2] Provided that the exchange rate is: 1 USD=370,22 KZT

Placing an article in the International Professional Journal "Medicine"	307 500	830,59
General expenses	163225,72	5829,49

Source: compiled by the author based on the data mentioned before

Thus, expenses in the amount of 163 225,72 UAH will be able to be covered during the first month of export activity (more precisely during 28 days).

As a result of the first year, the effect of the sale of PJSC "MONPHARM" on the Kazakhstani market will increase, but for the first month there will be losses in the amount of 3 630,82 UAH (Figure 3.3).

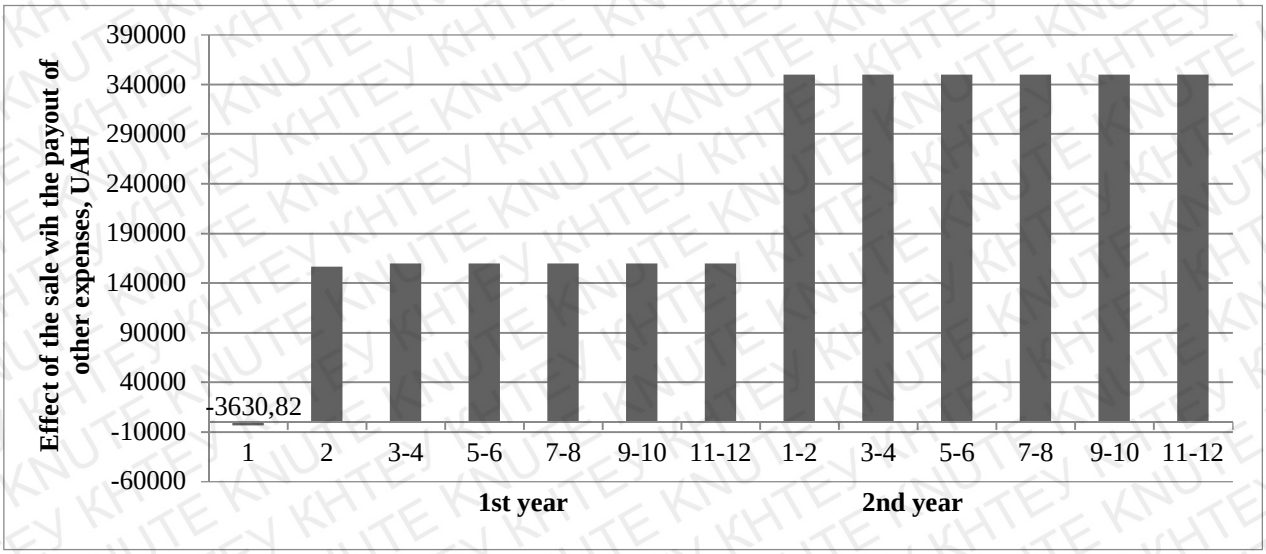


Figure 3.3. Effect of the sale of the "Methyluracil" suppository on the Kazakhstan market (for 2 years), UAH

Source: compiled by the author based on the own calculations

In principle, the existence of such a scenario is probable, since there is no "Methluracil " in the market in the form of suppositories and it has a rather specific direction of action and there are literally a few producers who produce Methyluracil, but in the form of ointments, which has a completely different direction of actions.

As a result of this, it is clear that the next step will be to change the sales volume of Methyluracil (depending on the demand for the product) and to entry the market with several types of drugs, analogues of which are not yet on the market, or an attempt to

enter the market with the product, which is represented on the market by several competitors, which can significantly affect the price, formed in the result of tender.

Realistic scenario

In a realistic scenario, the option is that during the auction the price of the product will fall to 29%, which can form the following prices: 27,5 UAH, 31 UAH, 35 UAH.

Table 3.16

Output data for calculating the realiistic scenario of export to the Republic of Kazakhstan, per 1 delivery, US dollars

Indicator	Possible price after the auction in UAH		
	27,5	31	35
Price in USD	0,98	1,107	1,25
Cost of products (1 package), USD	0,57	0,57	0,57
Number of products	14 250	14 250	14 250
Cost of the load, USD	17,14	17,14	17,14
Transportation costs, USD	5632,72	5632,72	5632,72
Insurance costs, USD	52	59	67
Other costs: drug registration and advertising costs, USD	5829,49	5829,49	5829,49

Source: compiled by the author

Based on the data above (Table 3.16), we can calculate the effectiveness of the export operation, of each of the possible options (Table 3.17), and determine the payback period of the costs for the evaluation of advertising material,for advertising on the television channel and in the specialized medical journal, and the cost of registration of the medicinal product.

Table 3.17

Effect and effectiveness of the sale of suppository "Methyluracil" whis the following prises (27,5 UAH, 31 UAH and 35 UAH), per 1 year

Indicator	Possible price after the auction, UAH		
	27,5	31	35
The cost of an export contract, USD	179732,14	202607,14	228750,00

Expenditure on the export of products, USD[3]	73981,70	68507,48	68598,98
Cost of production, USD	104571,43	104571,43	104571,43
Efficiency on the foreign market, USD	1,01	1,17	1,32
The effect on the foreign market, USD[1]	1179,01	29528,24	55579,59
The effect on the foreign market, UAH[1]	33012,33	826790,58	1556228,58
Payback period of other expenses, months.	58 (4 years and 8 months)	2,3 (2 months 1 day)	1,25 (1 month 8 days)

Source: compiled by the author based on the own calculations and on the data mentioned before

Thus, if the price is set at 31 or 35 UAH, the company can rely on a repeat of the optimistic scenario, that is, the possibility of increasing sales volumes and an increase in the effect of export activity. However, we should pay attention to the period from which the company will start to receive profit after the expiration of the payback period of other expenses (Figure 3.4).

If we talk about the price of 27,5 UAH for 1 package, then in this case, the company will pay back the other costs (expenses for the registration of the product and the advertising company) only after 4 years and 8 months, without receiving any profit from the export activity.

The only option is to increase supply, which will increase the effect of export activity and reduce the payback period of other expenses. However, there is a high risk that the market will not have enough demand for this drug.

[1] Provided that the exchange rate is: 1 USD=28 UAH
[3] Terms of delivery – DAP (Incoterms 2010)

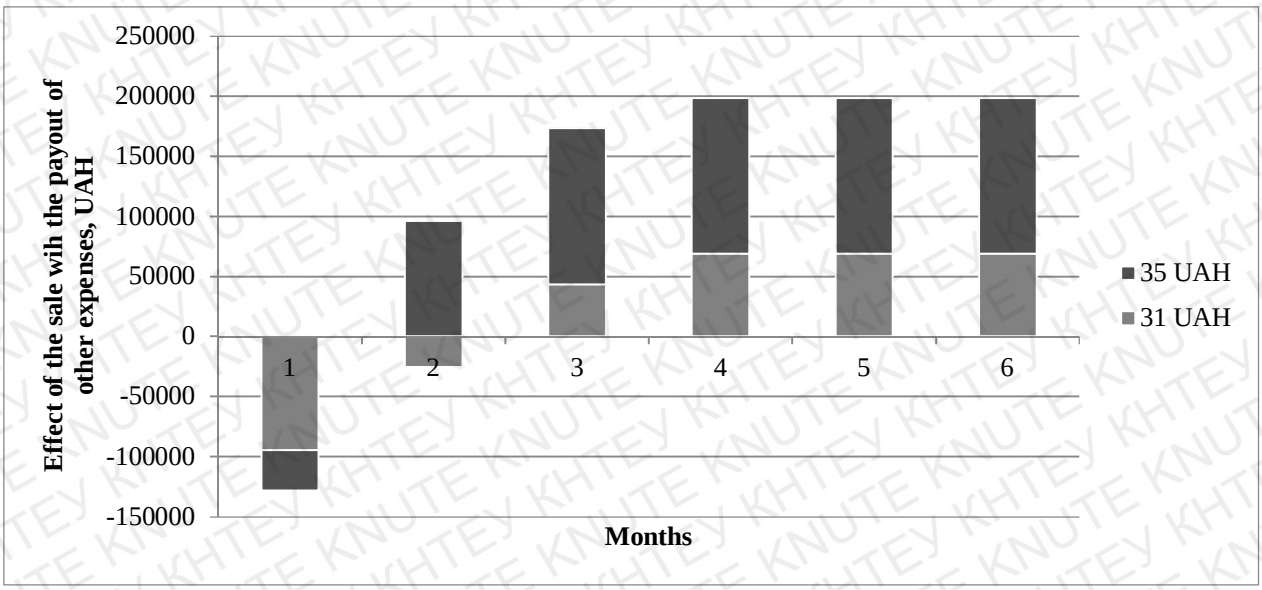


Figure 3.4. Effect of the sale of the "Methyluracil" suppository on the Kazakhstan market after the expiration of the payback period of other expenses, UAH

Note: Only if there is a uniform sales volume and a stable exchange rate.

Source: compiled by the author based on the own calculations

Pessimistic scenario

Under such a scenario, the unit price should be less than UAH 27,5. To calculate, we will take for an example the price that is in 33% lower -26 UAH.

Table 3.18

Output data for calculating the realiistic scenario of export to the Republic of Kazakhstan, per 1 delivery

Indicator	UAH	USD[4]
Cost of products (1 package)	16	0,57
Maximum marginal price	26	0,93
Number of products	14 250	
Cost of the load	480	17,14
Transportation costs	157 716	5 632,72
Insurance costs	1 388	50

Source: compiled by the author

[4] If the exchange rate does not change in the future - 1 USD=28 UAH

So, based on the data above (Table 3.18), we will calculate the effectiveness of the export transaction for 1 year.

1. The cost of the export contract = 0,93 USD ? 14,250 ? 12 = 169 928,57 USD

2. Expenditure on export of products[3]= (5 632,72 USD + 50 USD + 17,14 USD) ? 12 = 73 947,39 USD

3. Cost of production = (16 UAH ? 14 250) / 28[4] ? 12 = 104 571,43 USD

4. Efficiency on the foreign market = 169 928,57 USD ? (73 947,39 USD + + 104 571,43 USD) = 0,95

Effect on the foreign market = 169 928,57 USD - (73 947,39 USD + 104 571,43 USD) = -8 590,25 USD or (– 240 526,92 UAH).

As a result of the calculation, one can conclude that if during the tender, the price of the product will decrease by more than 29%, and there is a risk that with increased quantities of supplies there will not be enough demand for the drug, then it would be pointless to agree to export products at such a price. As a result, PJSC "MONPHARM" will suffer losses in the amount of KZT 1 652 951 (4464,78 USD) for the mandatory preliminary registration of the medicinal product.

CONCLUSIONS TO PART 3

In order to increase the competitiveness of PJSC "MONPHARM", four possible options were considered. One of them was the release of new products. Since PJSC "MONPHARM" is rather small in comparison with world leaders in the production of pharmaceutical products, it is obvious that the production of a new product is too expensive for it. However, one should not forget about the existence of a generic market, the production of which does not require high costs, and the company already has experience in manufacturing this product.

The next possible option was the opening of production in the country of sale (abroad). However, after calculations it became clear that the cost of new equipment

[3] Terms of delivery – DAP (Incoterms 2010)

[4] If the exchange rate does not change in the future - 1 USD=28 UAH

and premises for the plant, together with hidden moments in the legislation of another country, could become a significant obstacle to open the plant in a foreign market and is quite risky.

Next, we reviewed the access to new markets and the implementation of advertising there. As for these ways to improve competitiveness there are many more benefits. First of all, this kind of activity is less costly, the company has some experience here, receiving high income. As a result, this option was chosen.

After analyzing the pharmaceutical market in the world, the Republic of Kazakhstan was chosen as the sales market. This country has major geographic advantages, a simpler procedure for product registration and market entry, and, moreover, has a smaller concentration of suppository producers.

After setting the price and calculating supply costs, optimistic, realistic and pessimistic scenarios were developed. With an optimistic option, the drugs will be sold at their maximum price and will have an efficiency of 1,43, while the cost of product registration and advertising costs will be redeemed for the first month. In addition, there will be an opportunity to increase sales, which will lead to an annual efficiency of 1,52 in the next year. As a result, in 2 years there will be an opportunity to enter the market with another product.

Under the realistic option, the efficiency will range from 1 to 1,32 per year. Under the pessimistic variant PJSC "MONPHARM" will not enter the market at all, as the price, established in the result of the auction will be too small for the efficiency of the export operation to be more than 1, and the incidental costs will be covered only after almost 5 years.

CONCLUSIONS AND PROPOSALS

The study, conducted during the writing of the final qualifying paper made it possible to consider the competitiveness of companies and opportunities to increase it in the foreign market of pharmaceutical products.

Each company that enters the market with its own products, trying to achieve an advantage over other companies. The possibilities of an enterprise in achieving such an advantage are defined by such a concept as competitiveness. Competitiveness is one of the main concepts that is actively used in the theory and practice of economic analysis, stands for a multi-faceted concept

Different scholars interpret the term "competitiveness" in different ways, based on their points of view. The main scientists involved in issues of competitiveness were: Porter M., Maslyayeva O.O., Zavadsky J.S., Fathutdinov R.A., Yaroshenko S.P. and Voronin G.O..

Moreover, the criteria, characteristics of competitiveness at the level of goods, firms, corporations, industries, have their own specifics that need to be analyzed in different ways. The competitiveness of the product shows a more complete ability to meet the requirements of buyers compared to similar products in the market. The competitiveness of the industry is determined by the availability of technical, economic and organizational conditions for creation, production and sales (with costs not higher than international ones) of high quality products that meet the requirements of specific groups of consumers. The competitiveness of an enterprise should be understood as the ability of a firm to study demand (market), the ability to manufacture and sell goods that by their properties better meet consumers' needs than competitors.

One of the criteria that determines the company's success in the global market is its international competitiveness. International competitiveness should be understood as the achievement of an enterprise's competitive advantage in rivalry in the international market.

The set of factors that affect and ensure the competitiveness of the enterprise are so significant and peculiar that there is no single methodology for collecting data on their

processing and identification for the adoption of appropriate decisions. The most common classification of factors influencing competitiveness is the classification from the position of belonging to the enterprise: internal and external.

Companies can also use the frameworks and models depending upon the objective of competitiveness intervention and category of a company. Selection of right kind of frameworks and models is very important for success of competitiveness intervention of a company. The selection of the relevant framework or model depends on company's capability and its situation on the market.

The efficiency of the functioning of enterprises in modern economic conditions depends directly on the process of assessing the competitiveness of the enterprise. The methods for evaluation the competitiveness of a company vary from relatively simple ones, based on insufficient funding and limited information, to complex, high-cost enterprises and high professionalism of researching staff of competitiveness. They are: economic and mathematical methods, graphic methods, descriptive methods and mixed techniques.

The pharmaceutical industry is currently one of the most promising sectors of the economy. The competitiveness of the pharmaceutical manufacturer of medicines and medical products should be considered as a system of continuously interacting complex of factors that characterizes the degree of realization of real and potential opportunities for the formation of new competitive advantages over a long period of time. Therefore, the provision and increase of competitiveness implies a dynamic adaptation of the pharmaceutical company to changing factors and conditions of the business environment.

One of the companies, which is engaged in the production of more than 60 units of medicines of various pharmacotherapeutic groups is PJSC "MONPHARM". Taking into account the needs of consumers and the level of competition in the market, the enterprise constantly expands the range of its products, by introducing into production of original drugs and production of generics.

The main feature of this enterprise is the manufacture of medicines in the form of suppositories. Today, PJSC "MONPHARM" is the leader in their production in

Ukraine. The achievements of the company in the production of suppositories were noted by the Assembly of Business Circles of Ukraine, and as a result of the introduction of modern technologies and the production of quality medicines in the form of suppositories of PJSC “MONPHARM”, it became a laureate of national competitions.

Drugs produced by PJSC “MONPHARM” taking into account the high efficiency, proper quality, and accessibility are successfully implemented not only in Ukraine, but also in the pharmaceutical markets of the CIS countries. To date, cooperation has been established with the Republic of Belarus, preparations have been registered in Moldova and Turkmenistan.

Thus, the company has all the opportunities for further activities in the foreign market. However, in order to increase competitiveness, it is necessary to investigate well all the factors affecting it and consider various opportunities for its improvement.

In order to assess the level of competitiveness of an enterprise, it is necessary to assess its internal financial stability. After assessing the indicators of liquidity, profitability and financial stability of PJSC "MONPHARM", we can conclude that the company has a profitable activity , and has a possibility for stable development in the future, which gives it all the opportunities for increasing competitiveness in the foreign market.

The global pharmaceutical market, along with the oil, gas and mineral fertilizer market, is one of the most profitable sectors of the international economy. That is why the best way to estimate the enterprise environment and the influence of external factors on its activity is to use PESTLE analysis.

The following factors were underlined as the most important political factors: the deepening of the processes of European integration; the impact of new president election in the USA; GST implementation in India; the policy of public health financing.

To aconomic factors belong: currency fluctuations; the global economic crisis; increased pressure on health care costs; decrease in consumer disposable income; mergers and acquisitions.

Sicial factors are represented by: increasing aging population; a problem of the increasing obesity amongst the population and its associated health risks. Technological factors include an advertising policy and R&D expenditure of the competitors. And the last one – legislation factors (value added tax, customs duties, an international standards) and an environmental factors.

However, the most effective way to assess the level of competitiveness of PJSC "MONPHARM" is precisely the determination of its competitive position in the market to which its products are exported, and in general, the assessment of the implementation of this export operation. As a result of the evaluation, direct competitors, which also sell suppositories on the Belarus market, were found, namely JSC "NIZHPHARM" (Russia), Pharmaprim Ltd. (Moldova), KRKA (Slovenia), Moscow FF (Russia) and UPSA (France). After that it was calculated Competitive Price Index, export efficiency and export effect. As a result, it was determined that the company has the lowest IPC and lowest sales (although the difference is not significant), which suggests that in the case of product quality improvement or its better advertising, the company can increase sales volumes and the price of it. And moreover it was established that the export of suppositories on the Belarusian market is very effective, and it has grown year by year.

However, for further development of the company, it is necessary to consider alternative ways to increase competitiveness in the pharmaceutical market. During the analysis, the following options were considered, such as entering the new market, launching new products, implementing an advertising campaign, opening production in the country of product sales. The study found that the best option would be to enter the new market and implement an advertising campaign there.

After analyzing the pharmaceutical market in the world, the Republic of Kazakhstan was chosen as the sales market. This country has major geographic advantages, a simpler procedure for product registration and market entry, and, moreover, has a smaller concentration of suppository producers.

If we analyze the market of Kazakhstan,it can be seen that the main competitors in this field of products are enterprises: NIZHFARM OJSC and FARMAPRIM SRL.

Thus, we can conclude that the best way to enter the market is to present products whose analogues do not exist in the Kazakhstan market yet. Among the available options for drugs, the best among them is Methyluracil, since it has a wide and unique range of applications.

After calculating export costs, incidental costs and approximate pricing, on the basis of which an auction will be held by a Kazakhstan pharmaceutical pharmaceutical distributor “SK-Pharmacy”, optimistic, realistic and pessimistic scenarios were developed.

With an optimistic option, the drugs will be sold at their maximum price and will have an efficiency of 1,43, while the cost of product registration and advertising costs will be redeemed for the first month. In addition, there will be an opportunity to increase sales, which will lead to an annual efficiency of 1,52 in the next year. As a result, in 2 years there will be an opportunity to enter the market with another product.

Under the realistic option, the efficiency will range from 1 to 1,32 per year. Under the pessimistic variant PJSC "MONPHARM" will not enter the market at all, as the price, established in the result of the auction will be too small for the efficiency of the export operation to be more than 1, and the incidental costs will be covered only after almost 5 years.

Thus, we can conclude that entering the market and the gradual expansion of the range of products sold, will allow us to firmly consolidate company's positions and help to secure financial reserves for further struggle in the market of pharmaceutical products in the world.

REFERENCES

1. Advertising activities in Kazakhstan [Electronic resource]. – Available at: http://egov.kz/cms/ru/articles/reclama_rk
2. Advertising agency - RA "ZEYDA" [Electronic resource]. – Available at: https://reklamastana.kz/p12925228-reklama-telegazeta-banner.html
3. Analytical note National Institute for Strategic Studies «Mechanisms for the development of high-tech and science-intensive industries in the pharmaceutical industry of Ukraine". [Electronic resource]. - Available at: http://www.niss.gov.ua/articles/846
4. Association of international pharmaceutical Manufacturers [Electronic resource]. – Available at: http://aipm.org.ua/i-znovu-naperedodni-zmin-shho-chekaye-na-farmrinok-ukrayini-u-2017-r/
5. Belyaev V.I. Marketing in the modern business: a guide to study, a collection of tests, situations, project assignments and assignments for students / V.I Belyaev. - Barnaul: Publishing House of the ASU, 2000. – 126 p.
6. Boruschak I. "Modern trends in development of the pharmaceutical market of Ukraine in the conditions of global structural distribution" [Electronic resourse] / Boruschak I., Zvarych I. Ya. – 2016. – P. 141 – 144 - Available at: dspace.tneu.edu.ua/bitstream/316497/23083/1/141-144.pdf
7. Business Finance: Textbook / Manager count and Sciences. Ed. prof. A. M. Podderyogin. - 3rd form., Processing. and add - K.: KNEU, 2000. - 460 p.
8. Business Guide. Belarusian Pharmaceutical Market [Electronic resource]. – 2015. – P.1-16. – Available at: http://www.investinbelarus.by/upload/pdf/2016_%D0%A4%D0%B0%D1%80%D0%BC%D0%B0%D1%86%D0%B5%D0%B2%D1%82%D0%B8%D0%BA%D0%B0_%D0%BE%D0%B1%D0%BD%D0%BE%D0%B2%D0%BB%D0%B5%D0%BD%D0%BD%D0%B0%D1%8F.pdf
9. Business magazine Forbes [Electronic resource]. – Available at: https://www.forbes.com/#528caa9a2254

10. Cater T. How the Sources of Competitive Advantage Shape Firm Performance: The Case of Slovenian Firms / T. Cater // Paper presented at the 5th European Academy of Management Conference. - 2005

11. Center for Expertise and Testing in Health. Republic of Belarus [Electronic resource]. – Available at: http://www.rceth.by/ru/Departments/Med/Prices

12. Competition issues in the pharmaceutical sector EU10 [Electronic resource]. – Available at: http://www. biofit.ru/farmatscevticheskii-rynok/problemy-konkurentscii-vfarmatscevticheskom-sektore-es.html

13. Competitive Strength and Market: An Assessment of Competitiveness as a Factor for Determining Company Stability in the Market // Light Industry. - 2003. - No. 3. - P. 37, 58.

14. Competitiveness of the enterprise: assessment of the level and directions of improvement: [monograph / per comp. Ed. O. G. Yankovy]. - Odessa: Atlanta, 2013. - 470 p.

15. Dakhno I.I. Management of foreign economic activity: Teaching. manual ed. doctor of sciences, prof. I. I. Dakhno. K .: Center for Educational Literature, 2006. - 304 p.

16. DELLA. Trucking [Electronic resource]. – Available at: https://della.ua/price/98/

17. Depperu D. Analyzing international competitiveness at the firm evel: Concepts and measures [Electronic resourse] / D. Depperu, D. Cerrato D// Quaderni del Dipartimento di Scienze. – 2005. – Available at: http://dipartimenti. unicatt.it/diseswp_azzurra_05_32.pdf

18. Didchenko O.I. Assessment of competitiveness of industrial enterprise [Electronic resourse] / Didchenko O.I., Manuilova I.O. // Zaporizhzhya State Engineering Academy. – 2013, – P. 143-151.- Available at: http://www.zgia.zp.ua/gazeta/evzdia_5_143.pdf

19. Directive of the Ministry of Health of the Republic of Kazakhstan on pricing for the examination and re-registration of medicinal products [Electronic resource]. – Available at: http://www.ndda.kz/upload/dari.kz/Obk/prikaz_ru.pdf

20. Directorate-General for Internal Policies.European Parlament. Report: Differences in costs of and acces to pharmaceutical products in the EU [Electronic resource]. – 2011, - P. 1-92. – Available at:http://www.europarl.europa.eu /RegData/etudes/etudes/join/2011/451481/IPOL-ENVI_ET(2011)451481_EN.pdf

21. Dr. Ajitabh Ambastha1. Competitiveness of Firms: Review of Theory, Frameworks and Models / Dr. Ajitabh Ambastha1, Dr. K. Momaya // Singapore Management Review. – 2004. - №1. – P. 45-61

22. Drobitko N.A. Management of competitiveness in the conditions of a market economy: Author's abstract - Kh.: KhNEU, 2008 - 20 p.

23. Dykan V. L. “Methodical approaches to the assessment of the competitiveness of enterprises” / Dykan V. L. // Visnyk ekonomiky transportu i promyslovosti". - 2011 - №36. - P. 100 - 105.

24. EFPIA. The Pharmaceutical Industry in Figures 2018 [Electronic resource]. – Available at: https://www.efpia.eu/media/361960/efpia-pharmafigures2018_v07-hq.pdf

25. Elets O.P. The Essence of Competition and Competitiveness of the Enterprise / Yelets O.P., Bogdan Y.V. // Ways and factors of reducing the cost of production of an industrial enterprise. - 2014. - P. 82-91

26. EULER HERMES. Global Pharmaceuticals report " [Electronic resource]. – Available at: http://www.eulerhermes.com/economic-research/sector-risks/Global-Pharmaceuticals-Report/Pages/default.aspx

27. Eurasian Development Bank. Prospects for development the pharmaceutical market of the Common Economic Space [Electronic resource]. – Available at: http://www.eabr.org/general/upload/docs/AU/%D0%90%D0%A3%20%20% D0%98 %D0%B7%D0%B4%D0%B0%D0%BD%D0%B8%D1%8F%20%202013/OBZOR_18 _rus.pdf

28. European Commission. Legal framework governing medicinal products for human use in the EU [Electronic resource]. – Available at: https://ec.europa.eu/health/human-use/legal-framework_en

29. European Commission.EU Trade Helpdesk:My Export [Electronic resource]. – Available at: http://trade.ec.europa.eu/tradehelp/myexport#?product= 30049000 00&partner=UA&reporter=PL&tab=2

30. European Medicines Agency [Electronic resource]. – Available at: https://www.ema.europa.eu/en/human-regulatory/overview/fees-payable-european-medicines-agency

31. Evans J.R. Marketing / JR Evans, B. Berman. - M.: Economics, 1993. - 371 p.

32. Evdokimov F.I. ABC marketing / F.I. Evdokimov, V.M. Haawa - [3rd ed.,]. - 2008. - 432 p.

33. Fatkhutdinov R. A. Competitiveness: economics, strategy, management / R. A. Fatkhutdinov. - M.: INFRA-M. - 2000. - 312 p.

34. Forecasting drug costs for EU countries [Electronic resource]. – Available at: ec.europa.eu; www.imshealth.com; www.oecd.org

35. Frolova G. I. Competitiveness of enterprises of the pharmaceutical industry of ukraine / G. I. Frolova, V. Yu. Frolova // Bulletin of the Berdyansk University of Management and Business. – 2012, - №1 (17). – P. 146-152

36. Gileta Yu.I. Redistribution of market power in the pharmaceutical market / Yu.I. Gileta // Bulletin of the Odessa National University. Economy. - 2013. - №18. - P. 51-57.

37. Gladkikh D.E., Trends Of The Development Of The World Chemical-Pharmaceutical Market In Global Crisis Conditions/ Gladkikh D.E. // Scientific Bulletin of the International Humanitarian University. - 2016. P. 32-35

38. Golubkov E.P. Marketing Research: Theory, Methodology and Practice / E. P. Golubkov. - 2nd ed., Moscow: Finekspress, 2000. - 464 p.

39. Grinev AV, Ponomareva N.V., Ponomareva N.M. Competitiveness of the motor transport company in the market of international freight transport: [monograph] / AV Grinev, N.V. Ponomareva, N.M. Ponomareva - Kharkiv: KhNAHU, 2009. - 124 p

40. Humphreys G. Direct-to-consumer advertising under fire. Bull World Health / Humphreys G. // US National Library of Medicine National Institutes of Health. - - 2009. - №87. – P. 576–577.

41. Information Internet portal of the pharmaceutical industry. GMP News. Trends in the development of the pharmaceutical industry in 2018 [Electronic resource]. – Available at: https://gmpnews.ru/2017/12/tendencii-razvitiya-farmacevticheskoj-industrii-v-2018-godu/

42. International Monetary Fund Home Page [Electronic resource]. – Available at: https://www.imf.org/external/russian/index.htm

43. Invest in Belarus. Prospective sectors brief analysis [Electronic resource]. – 2014. – P.1-54. - Available at: http://investinbelarus.by/docs/Invest%20in%20Belarus.%20Prospective%20sectors%202014.pdf

44. Ivanov Yu.B. Competitive Benefits of an Enterprise: Evaluation, Formation and Development / Yu.B. Ivanov, PA Orlov, O.Yu. Ivanova - NAS of Ukraine, Research Center for Industrial Development Problems. - Kh.: "INZHEK", 2008. - 352 p.

45. Kamishnikov R.V. Competitiveness of the enterprise in the system of marketing:"Economics, organization and management of enterprises" / R.V. Kamishnikov - K., 2006. – 20 p.

46. Klymenko S. M. Managing the competitiveness of the enterprise: teaching. manual / S. M. Klymenko, O. S. Dubov, D. O. Barabas and others. - K.: KNEU, 2006. - 527 p.

47. Kostiuk H. Ukraine competitiveness pharmaceutical industry [Electronic resourse] /A.Kovalenko // Electronic scientific special edition "Effective Economy". – 2016. - №11. – Available at: http://www.economy.nayka.com.ua/?op=1&z=2547

48. Kotler F. Fundamentals of Marketing / F. Kotler. - M.: Rosinter, 1996. - 594 p.

49. Kotvitskaya A.A. Analysis of factors influencing the competitiveness of domestic pharmaceutical companies / A. A. Kotvitskaya, I. O. Surikova // Modern advances in pharmaceutical technology: materials of the IV scientific-practical conference (October 16-17, 2014 .) - X .: View of the NFUU, 2014 - P. 166-167.

50. KRATIIA. Consulting services for registration in Ukraine. Production of Medicines (GMP) [Electronic resource]. – Available at: https://cratia.ua/uk/razrabotka-vnedrenie-i-sertifikaciya-sistem-upravleniya-kachestvom/proizvodstvo-lekarstv.html

51. Lengky V. I. Stages of enterprise competitiveness assessment and types of strategies for its improvement / Vasyl Ivanovich Lengky. // Scientific Information Bulletin "Economics". - 2015 - №11. - P. 267-273.

52. Life Science Leader. Drug Pricing: 2017's Challenge Confronting Biopharma [Electronic resource]. – Available at: https://www.lifescienceleader.com/doc/drug-pricing-s-challenge-confronting-biopharma-0001

53. Maslyaeva O.O. Economic essence of the category "Competitiveness": definition and systematization [Electronic resource] / Maslyaeva O.O. // Effective economy. - 2011.- Available at: http://www.economy.nayka.com.ua/?op=1&z=737.

54. Medical Information System MedElement [Electronic resource]. – Available at: https://medelement.com/page/o_proekte_medelement

55. Ministry of Finance of Ukraine [Electronic resource]. – Available at: https://minfin.com.ua/ua/

56. Morgan SG. Direct-to-consumer advertising and expenditures on prescription drugs: A comparison of experiences in the United States and Canada [Electronic resource] / Morgan SG. // US National Library of Medicine National Institutes of Health. - 2007. - №1(1). – P. 37–45. - Available at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2801909/

57. National Center for Expertise of Medicinal Products, Medical Products and Medical Equipment of the Ministry of Health of the Republic of Kazakhstan. Evaluation of the safety and quality of drugs and medical devices [Electronic resource]. – Available at: http://www.ndda.kz/category/Ocenka_bezopasnosti

58. Nelson R. When ads trump evidence: Is direct-to-consumer advertising leading practice? / Nelson R. // US National Library of Medicine National Institutes of Health. - 2007. - № 107(10). – P. 25–26.

59. Official site of PJSC "MONPHARM" [Electronic resource]. – Available at: http://www.monfarm.com.ua/index-1.html

60. Pablic radio International. Global Post: This map shows which disease is most likely to kill you depending on where you live [Electronic resource]. – Available at:

http://www.globalpost.com/dispatch/news/health/140610/map-most-deadly-diseases-by-country

61. Perminov S.A. Managing of international competitiveness as success factor of modern company / S.A. Perminov, Y. V. Romanko / / The Young Scientist – 2016, №2. – P. 70-74

62. Pharma IQ. Middle East North Africa Pharmaceutical Market - In Transitionm [Electronic resource]. – Available at: https://www.pharma-iq.com/market-access/articles/middle-east-north-africa-pharmaceutical-market-in

63. Pharmaceutical.Investing News. Pharmaceutical Industry Overview: Top International Regions for Drug Companies [Electronic resource]. – Available at: https://investingnews.com/daily/life-science-investing/pharmaceutical-investing/top-pharmaceutical-regions/

64. Pivovarov S.E. International Management / ed. S.E. Pivovarova and others - SPb. 2013 - 720 p.

65. Pogrebniak D. V. Evaluation of the competitiveness of industrial enterprises [Electronic resourse] / Pogrebniak D.V., Yakymenko N.A. – 2013 .- Available at: http://probl-economy.kpi.ua/pdf/2013-23.pdf

66. Porter M. Competition. - M .: Williams Publishing House, 2001. - 495 p.

67. Porter M. Competitive Strategy: Techniques for Analyzing Industries and Competitors / Porter M.- New York: Free Press, 1980. – 432 p.

68. Procurement of medicines. SK Pharmacy [Electronic resource]. – Available at: http://www.sk-pharmacy.kz/

69. Publishing House "Public Health Of Kazakhstan" [Electronic resource]. – Available at: http://www.medzdrav.kz/index.php/o-nas

70. Purchase of medical products [Electronic resource]. – Available at: https://zakupka.com/t/farmacevticheskoe-oborudovanie-2052/

71. Pustov M.D. Prospects for development of the pharmaceutical market of Ukraine in the conditions of Euro-integration / Pustov M.D., Goley Yu. M. // Collection of scientific works of the International scientific-practical conference. Dniepropetrovsk. - 2016. – P.53 – 56

72. «Regafarm» - a consulting company [Electronic resource]. – Available at: .http://regapharm.ru/price_registration_drugs_russia

73. Report «Global Pharmaceuticals» [Electronic resource] // Hardman&CO. – 2018, - P. 1-16. - Available at: http://www.hardmanandco.com/docs/default-source /newsletters/global-pharmaceuticals---2017-industry-stats---april-2018.pdf

74. Search system of medicines in Belarus [Electronic resource]. – Available at: http://tabletka.by/result2.php?rs=1&lstr=129&regcsv=-1000

75. Search system of medicines in Kazakhstan [Electronic resource]. – Available at: https://www.tabletka.kz/poisk-lekarstv/result.html?tovar=%D1%81%D0%B2%D0%B5%D1%87%D0%B8&page=4

76. Shashina M. V.. A personnel as one of the factors of increasing competitiveness of the pharmaceutical industry enterprise [Electronic resourse] / M. V. Shashina, M. Rubtsov // Electronic scientific special edition "Effective Economy". – 2018. - №2. - Available at: http://www.economy.nayka.com.ua/pdf/2_2018/51.pdf

77. Shemchuk L.O. Competitiveness of the enterprise in the system of its supporting factors [Electronic resource]. – Available at: http://mev-hnu.at.ua/load/mizhnarodna_naukovo_praktichna_internet_konference/8_shljakhi_pidvishhennja_konkurentospromozhnosti_vitchiznjanikh_pidpriemstv/9

78. Silversides A. Abramson: Direct-to-consumer advertising will erode health care [Electronic resource] / Silversides A. // US National Library of Medicine National Institutes of Health. - 2008. - №178(9). - P. 1126–1127. – Available at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2292774/

79. Smith A. The Theory of Moral Sentiments [Electronic resource] - 2008. – p. 181. – Available at: https://www.earlymoderntexts.com/assets/pdfs/smith1759.pdf

80. Susidenko Yu.V. Competitiveness of the enterprise and factors affecting it / Susidenko Yu.V., Voznyuk M.A. – 2012 .- Available at: http://intkonf.org/susidenko-yu-v-voznyuk-m-akonkurentospromozhnist-pidpriemstva-ta-faktori-scho-na-ney-vplivayut.

81. The Growing Pharmaceuticals Market: Expert Forecasts and Analysis [Electronic resource] // MARKET RESEARCH BLOG. – Available at:

https://blog.marketresearch .com/the-growing-pharmaceuticals-market-expert-forecasts-and-analysis

82. The Internet newspaper Apteka.UA. Mergers and Acquisitions in the Field of Pharmacy and Biotechnology: The Results of 2017 [Electronic resource]. – Available at: https://www.apteka.ua/article/441313

83. The Internet newspaper Apteka.UA. R & D activity of pharmaceutical and biotech companies [Electronic resource]. – Available at: https://www.apteka.ua/article/278306

84. The Statistics Portal. Middle East North Africa Pharmaceutical Market - In Transition [Electronic resource]. – Available at: https://www.statista.com/statistics /784420/share-of-worldwide-pharma-revenue-by-country/

85. The World Bank [Electronic resource]. – Available at:https://data.worldbank .org/indicator/SH.XPD.CHEX.PC.CD?end=2015&start=2010&view=chart

86. Todosiychuk T. S. Biotechnological production of antibiotics / Izdevskaya T.I., Gromyko O. M., Fedorenko V.O. // Biological studies. - 2014. - Volume 5 / № 1. - P. 159-172

87. Transcarpathian news. How many people in the world are suffering from obesity? Horrible statistics [Electronic resource]. – Available at: http://zaknews.in.ua/novini/24799-sklki-lyudey-u-svt-strazhdayut-vd-ozhirnnya-zhahliva-statistika.html

88. United Nations Commodity Trade Statistics Database [Electronic resource]. – Available at: http://comtrade.un.org/db/ce/ceSnapshot.aspx?cc=54 &px=S3& y=2012&p=0&rg=1,2&so=9999

89. UNITER. Pharmaceutical industry [Electronic resource]. – 2014. – P.1-15 – Available at: http://investinbelarus.by/docs/-22042.pdf

90. US National Library of Medicine National Institutes of Health. Direct-to-Consumer Pharmaceutical Advertising. Therapeutic or Toxic? statistics [Electronic resource]. – Available at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3278148/

91. Voronin G. On the competitiveness of industrial enterprises // Economist. - M, 2004. - №6. - P. 18

92. World Health Organization [Electronic resource]. – Available at: http://apps.who.int/nha/database/ViewData/Indicators/en

93. World Health Organization. WHO/HAI Project on Medicine Prices and Availability [Electronic resource].- P. 1-33. – Available at: http://haiweb.org/wp-content/uploads/2015/08/Taxes-final-May2011a1.pdf

94. Yaroshenko SP Reserves for improving the competitiveness of meat subcomplex of Ukraine. - Sumy: Cossack Val, 1998. - 249 p.

95. Zavadsky J. S. Economic Dictionary / J. S. Zavadsky, T. Osovska, O. O. Yushkevich. - Kyiv: Condor, 2006. - 356 p

96. Zhurba I.O. Essence and value of competitiveness of the enterprise / I.O. Zhurba, Yu.M. Kolyadenko // Cherkasy State Technological University.- 2012, - №35. – P. 97-103

97. Zlomanyuk T. V. Methodological bases of assessment of competitiveness of the enterprise / T. V. Zlomanyuk // Economic Newsletter Donbass. – 2009, - №4 (18). – P. 158-162

Appendix C

Retrospective balance sheets of PJSC "MONPHARM"
(Value of assets per year) in 2012-2017, thousand UAH

ASSETS	Code	31.12.2012	31.12.2013	31.12.2014	31.12.2015	31.12.2016	31.12.2017
I. Fixed assets							
Intangible assets:	1000	0,00	0,00	0,00	0,00	0,00	0,00
initial value	1001	12,00	12,00	12,00	0,00	0,00	0,00
accumulated depreciation	1002	12,00	12,00	12,00	0,00	0,00	0,00
Incomplete capital investments	1005	2208,00	1849,00	1 862	1 862	1 870	0,00
Fixed assets:	1010	12543,00	13707,00	14 291	18 693	17 754	26 149
initial value	1011	24987,00	27436,00	29 438	34 846	35 525	49 227
depreciation	1012	12444,00	13729,00	15 147	16 153	17 771	23 078
that records under the equity method other enterprises	1030	20001,00	40002,00	40 002	40 002	40 002	49 998
Deferred tax assets	1045	29,00	0,00	0,00	0,00	0,00	0,00
Other fixed assets	1090	2,00	3,00	0,00	0,00	0,00	0,00
Total for Section I	**1095**	**34783,00**	**55561,00**	**56 155**	**60 557**	**59 626**	**76 147**
II. Current assets							
Inventories	1100	16519,00	19738,00	23 588	38 682	41 066	47 552
Industrial stocks	1101	8035,00	11965,00	10 502	23 109	23 581	27 031
Unfinished production	1102	196,00	6,00	9,00	8,00	329,00	6,00
Final product	1103	8288,00	7767,00	13 077	15 565	17 156	20 508
Goods	1104	0,00	0,00	0,00	0,00	0,00	7,00
Accounts receivable for products, goods, works, services	1125	19865,00	29193,00	31 231	32 036	42 449	47 569
for advances paid	1130	0,00	0,00	0,00	0,00	38,00	158,00
with a budget	1135	40,00	583,00	25	398	31	9
Other current receivables	1155	1685,00	878,00	3 506	1 224	3 875	4 519
Money and cash equivalents	1165	560,00	322,00	2 391	7 220	6 462	4 718
Cash	1166	2,00	1,00	1	1	2	3
Bank accounts	1167	558,00	321,00	2 390	7 219	6 460	4 715
Prepaid expenses	1170	0,00	0,00	5	0,00	110	0,00
Other current assets	1190	8,00	0,00	0,00	0,00	15,00	0,00
Total for Section II	**1195**	**38717,00**	**50753,00**	**60 746**	**79 560**	**94 046**	**104 525**
Balance	**1300**	**73500,00**	**106314,00**	**116 901**	**140 117**	**153 672**	**180 672**

Source: compiled by the author based on the calculations and on balance sheets of PJSC "MONPHARM" (2012-2017), Appendix A

Appendix D

Retrospective balance sheets of PJSC "MONPHARM" (Assets, horizontal and vertical analysis) in 2012-2017, %

ASSETS	Code	Horizontal analysis, %				Vertical analysis, %				
		2014/2013	2015/2014	2016/2015	2017/2016	31.12. 2013	31.12. 2014	31.12. 2015	31.12. 2016	31.12. 2017
I. Fixed assets										
Intangible assets:	1000	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
initial value	1001	0,00	-100,00	0,00	0,00	0,01	0,01	0,00	0,00	0,00
accumulated depreciation	1002	0,00	-100,00	0,00	0,00	0,01	0,01	0,00	0,00	0,00
Incomplete capital investments	1005	0,70	0,00	0,43	-100,00	1,74	1,59	1,33	1,22	0,00
Fixed assets:	1010	4,26	30,80	-5,02	47,29	12,89	12,22	13,34	11,55	14,47
initial value	1011	7,30	18,37	1,95	38,57	25,81	25,18	24,87	23,12	27,25
depreciation	1012	10,33	6,64	10,02	29,86	12,91	12,96	11,53	11,56	12,77
that records under the equity method other enterprises	1030	0,00	0,00	0,00	24,99	37,63	34,22	28,55	26,03	27,67
Deferred tax assets	1045	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Other fixed assets	1090	-100,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Total for Section I	**1095**	1,07	7,84	-1,54	27,71	52,26	48,04	43,22	38,80	42,15
II. Current assets										
Inventories	1100	19,51	63,99	6,16	15,79	18,57	20,18	27,61	26,72	26,32
Industrial stocks	1101	-12,23	120,04	2,04	14,63	11,25	8,98	16,49	15,35	14,96
Unfinished production	1102	50,00	-11,11	4012,50	-98,18	0,01	0,01	0,01	0,21	0,00
Final product	1103	68,37	19,03	10,22	19,54	7,31	11,19	11,11	11,16	11,35
Goods	1104	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Accounts receivable for products, goods, works, services	1125	6,98	2,58	32,50	12,06	27,46	26,72	22,86	27,62	26,33
for advances paid	1130	0,00	0,00	0,00	315,79	0,00	0,00	0,00	0,02	0,09
with a budget	1135	-95,71	1492,00	-92,21	-70,97	0,55	0,02	0,28	0,02	0,00

ASSETS	Code	Horizontal analysis, %				Vertical a		
		2014/2013	2015/2014	2016/2015	2017/2016	31.12. 2013	31.12. 2014	31.12
Other current receivables	1155	299,32	-65,09	216,58	16,62	0,83	3,00	0
Money and cash equivalents	1165	642,55	201,97	-10,50	-26,99	0,30	2,05	5
Cash	1166	0,00	0,00	100,00	50,00	0,00	0,00	0
Bank accounts	1167	644,55	202,05	-10,51	-27,01	0,30	2,04	5
Prepaid expenses	1170	0,00	-100,00	0,00	-100,00	0,00	0,00	0
Other current assets	1190	0,00	0,00	0,00	-100,00	0,00	0,00	0
Total for Section II	**1195**	19,69	30,97	18,21	11,14	47,74	51,96	56
Balance	**1300**	9,96	19,86	9,67	17,57	100	100	1

Source: compiled by the author based on the calculations and on balance sheets of PJSC "MONPHAR

Appendix E

Retrospective balance sheets of PJSC "MONPHARM"

(Value of liabilities per year) in 2012-2017, thousand UAH

Liability	Code	31.12.2012	31.12.2013	31.12.2014	31.12.2015	31.12.2016	31.12.2017
I. Equity							
The registered capital	1400	1575	1575	1 575	1 575	1 575	1 575
Additional capital	1410	7743	7743	7 743	7 743	7 743	0
Reserve capital	1415	241	241	241	241	241	0
Retained earnings (uncovered loss)	1420	24394	27515	31 879	52 310	76 789	99 245
Total for Section I	**1495**	**33953**	**37074**	**41 438**	**61 869**	**86 348**	**100 820**
II Long-term liabilities and provision							
Other long-term liabilities	1515	23251	43251	45 110	45 990	44 204	52 554
Total for Section II	**1595**	**23251**	**43251**	**45 110**	**45 990**	**44 204**	**53 107**
III Current liabilities and provision							
Promissory notes issued	1605	1267	1267	1 267	1 267	2 908	2 908
for goods and services	1615	13520	23585	27 772	26 525	18 336	15 822
for payments to budget	1620	634	93	246	3 195	406	1 496
including income tax	1621	0	0	0	0	195	747
for insurance payments	1625	197	232	241	343	234	329
for payments of wages	1630	419	533	553	681	887	1 202
Current payables on received advances	1635	0	17	0	0	0	0
Current payables for payments to participants	1640	0	0	0	0	0	3 771
Current ensuring	1660	259	262	187	215	177	702
Other current liabilities	1690	0	0	87	32	172	515
Total for Section III	**1695**	**16296**	**25989**	**30 353**	**32 258**	**23 120**	**26 745**
Balance	**1900**	**73500**	**106314**	**116 901**	**140 117**	**153 672**	**180 672**

Source: compiled by the author based on the calculations and on balance sheets of PJSC "MONPHARM" (2012-2017), Appendix B

Appendix F

Retrospective balance sheets of PJSC "MONPHARM" (Liabilities, horizontal and vertical analysis) in 2012-2017, %

Liability	Code	Horizontal analysis, %				Vertical analysis, %				
		2014/2013	2015/2014	2016/2015	2017/2016	31.12.2013	31.12.2014	31.12. 2015	31.12.2016	31.12. 2017
I. Equity										
The registered capital	1400	0,00	0,00	0,00	0,00	1,75	1,41	1,23	1,07	0,94
Additional capital	1410	0,00	0,00	0,00	-50,00	8,61	6,94	6,03	5,27	2,32
Reserve capital	1415	0,00	0,00	0,00	-50,00	0,27	0,22	0,19	0,16	0,07
Retained earnings (uncovered loss)	1420	14,42	41,75	53,34	36,36	28,87	26,61	32,76	43,94	52,65
Total for Section I	**1495**	**10,54**	**31,58**	**43,47**	**26,28**	**39,50**	**35,17**	**40,19**	**50,45**	**55,98**
II Long-term liabilities and provision										
Other long-term liabilities	1515	32,87	3,10	-0,99	7,28	36,98	39,59	35,44	30,70	28,94
Total for Section II	**1595**	**32,87**	**3,10**	**-0,99**	**7,89**	**36,98**	**39,59**	**35,44**	**30,70**	**29,11**
III Current liabilities and provision										
Promissory notes issued	1605	0,00	0,00	64,76	39,31	1,41	1,14	0,99	1,42	1,74
for goods and services	1615	38,41	5,72	-17,38	-23,86	20,64	23,01	21,13	15,27	10,22
for payments to budget	1620	-53,37	915,04	4,65	-47,18	0,40	0,15	1,34	1,23	0,57
including income tax	1621	0,00	0,00	0,00	383,08	0,00	0,00	0,00	0,07	0,28
for insurance payments	1625	10,26	23,47	-1,20	-2,43	0,24	0,21	0,23	0,20	0,17
for payments of wages	1630	14,08	13,63	27,07	33,23	0,53	0,49	0,48	0,53	0,62
Current payables on received advances	1635	0,00	-100,00	0,00	0,00	0,01	0,01	0,00	0,00	0,00
Current payables for payments to participants	1640	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	1,13
Current ensuring	1660	-13,82	-10,47	-2,49	124,23	0,29	0,20	0,16	0,13	0,26
Other current liabilities	1690	0,00	36,78	71,43	236,76	0,00	0,04	0,05	0,07	0,21
Total for Section III	**1695**	**33,24**	**11,13**	**-11,55**	**-9,96**	**23,52**	**25,24**	**24,36**	**18,85**	**14,91**
Balance	**1900**	**24,14**	**15,14**	**14,31**	**13,80**					

Source: compiled by the author based on the calculations and on balance sheets of PJSC "MONPHARM" (2012-2017)

Appendix G

Retrospective analytical statements of income of PJSC "MONPHARM"

(per year, horizontal analysis) in 2012-2017, thousand UAH, %

Item	Code	2013	2014	2015	2016	2017
I. FINANCIAL RESULTS						
Net income (revenue) from sales of products (goods and services)	2000	69820,00	91375,00	122 116	142 280	140 683
Cost of sales of products (goods and services)	2050	-47 290	-63 223	-68433	-81202	-80118
profit	2090	22 530	28 152	53 683	61 078	60 565
loss	2095	(-)	(-)	(-)	(-)	(-)
Other operating income	2120	2 276	2 159	4 913	1 056	3 921
Administrative expenses	2130	-5 296	-5 500	-7333	-9050	-13059
Selling expenses	2150	-1 836	-2 011	-2020	-3350	-2547
Other operating expenses	2180	-3 189	-6 368	-13423	-8834	-16545
Financial results of operations:						
profit	2190	14 485	16 432	35 820	40 900	32 335
loss	2195	(-)	(-)	(-)	(-)	(-)
Income from equity	2200	-	-	-	-	-
Other financial income	2220	-	-	-	-	-
Other income	2240	-	-	73	304	399
Financial expenses	2250	-10 292	-10 837	-11021	-11237	-11507
Losses from equity	2255	(-)	(-)	(-)	(-)	(-)
Other expenses	2270	(-)	(-)	-57	(-)	-159
Financial results before tax: profit	2290	4 193	5 595	24 815	29 967	21 068
loss	2295	(-)	(-)	(-)	(-)	(-)
Expenses (income) income tax	2300	-975	-1231	-4493	-5488	(4 118)
Profit (loss) from discontinued operations after tax	2305	-	-	-	-	-
Net financial result: profit	2350	3 218	4 364	20 322	24 479	16 950
loss	2355	(-)	(-)	(-)	(-)	(-)
I. ELEMENTS OF OPERATING COSTS						
Material costs	2500	41 293	41293	60606	69802	70090
Labour costs	2505	7 182	7182	9357	11810	15127
Deductions for social measures	2510	2 609	2609	3462	2464	3300
Depreciation	2515	1 369	1358	1393	1618	1577
Other operating costs	2520	2 860	2813	18878	18563	14544
Total	2550	55313	55255	93696	104257	104638
III. CALCULATION OF SHARES PROFITABILITY INDICATORS						
The average number of ordinary shares	2600	6301624	6301624	6301624	6301624	6301624
Adjusted average number of ordinary shares	2605	6301624	6301624	6301624	6301624	6301624
Net income (loss) per common share	2610	0,51066	0,69252	3,22488	3,88455	3,88455
Adjusted net income (loss) per common share	2615	0,51066	0,69252	3,22488	3,88455	3,88455
Dividends per common share	2650	-	-	-	-	-

Continuing of the Appendix G

Item	Change, %			
	2014/2013	**2015/2014**	**2016/2015**	**2017/2016**
I. FINANCIAL RESULTS				
Net income (revenue) from sales of products (goods and services)	30,87	33,64	16,51	-1,12
Cost of sales of products (goods and services)	33,69	8,24	18,66	-1,33
profit	24,95	90,96	13,78	-0,84
loss	-	-	-	-
Other operating income	-5,14	127,56	-78,51	271,31
Administrative expenses	3,85	33,33	23,41	44,3
Selling expenses	9,53	0,45	65,84	-23,97
Other operating expenses	99,69	110,79	-34,19	87,29
Financial results of operations:				
profit	13,44	117,99	14,18	-20,94
loss	-	-	-	-
Income from equity	-	-	-	-
Other financial income	-	-	-	-
Other income	-	-	316,44	31,25
Financial expenses	5,30	1,70	1,96	2,40
Losses from equity	-	-	-	-
Other expenses	-	-	-	-
Financial results before tax: profit	**33,44**	**343,52**	**20,76**	**-29,70**
loss	-	-	-	-
Expenses (income) income tax	26,26	264,99	22,15	-24,96
Profit (loss) from discontinued operations after tax	-	-	-	-
Net financial result: profit	**35,61**	**365,67**	**20,46**	**-30,76**
loss	-	-	-	-
I. ELEMENTS OF OPERATING COSTS				
Material costs	0,00	46,77	15,17	0,41
Labour costs	0,00	30,28	26,22	28,09
Deductions for social measures	0,00	32,69	-28,83	33,93
Depreciation	-0,80	2,58	16,15	-2,53
Other operating costs	-1,64	571,10	-1,67	-21,65
Total	-0,10	69,57	11,27	0,37
III. CALCULATION OF SHARES PROFITABILITY INDICATORS				
The average number of ordinary shares	0,00	0,00	0,00	0,00
Adjusted average number of ordinary shares	0,00	0,00	0,00	0,00
Net income (loss) per common share	35,61	365,67	20,46	0,00
Adjusted net income (loss) per common share	35,61%	365,67	20,46	0,00
Dividends per common share	-	-	-	-

Source: compiled by the author based on the calculations and on balance sheets of PJSC "MONPHARM" (2012-2017)

Appendix H

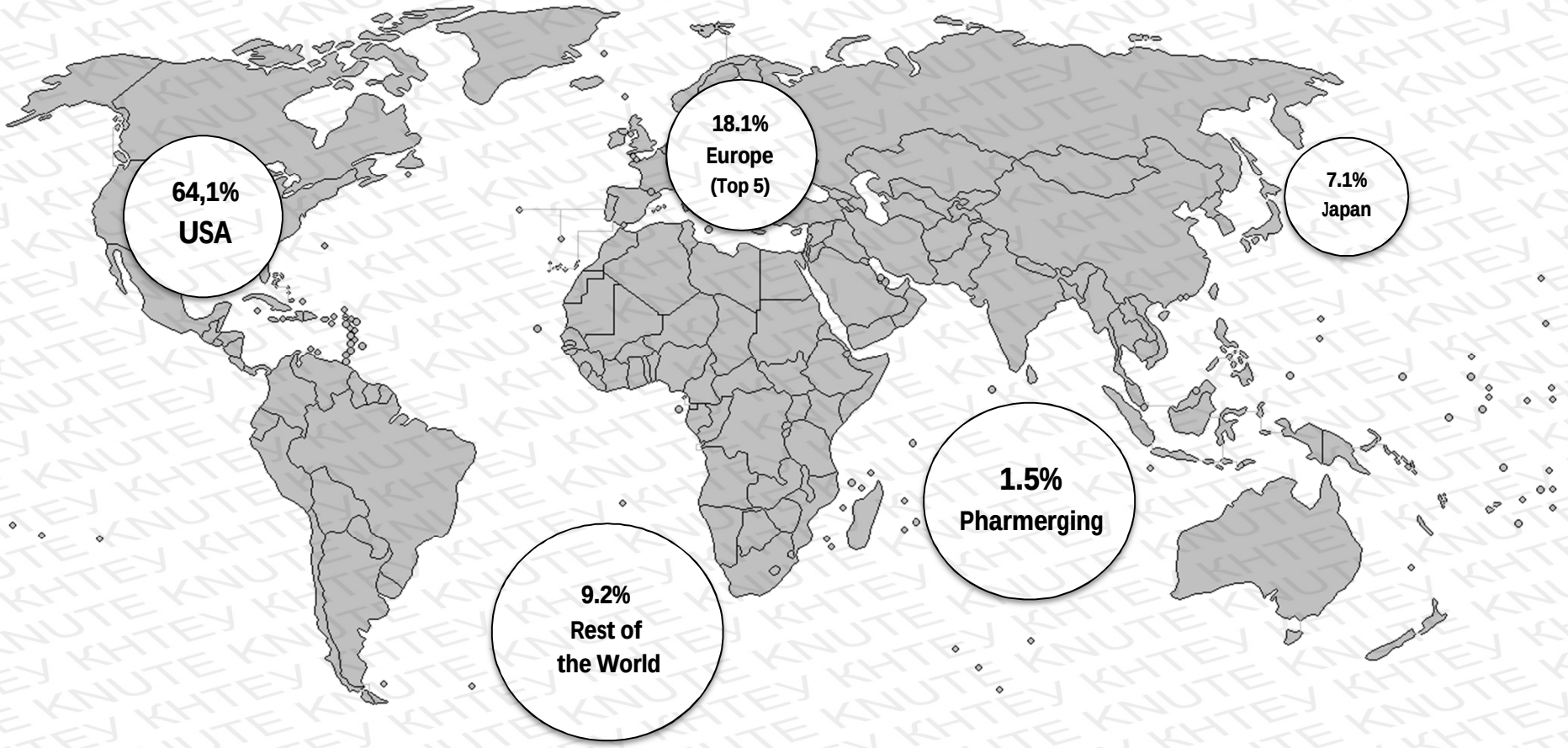
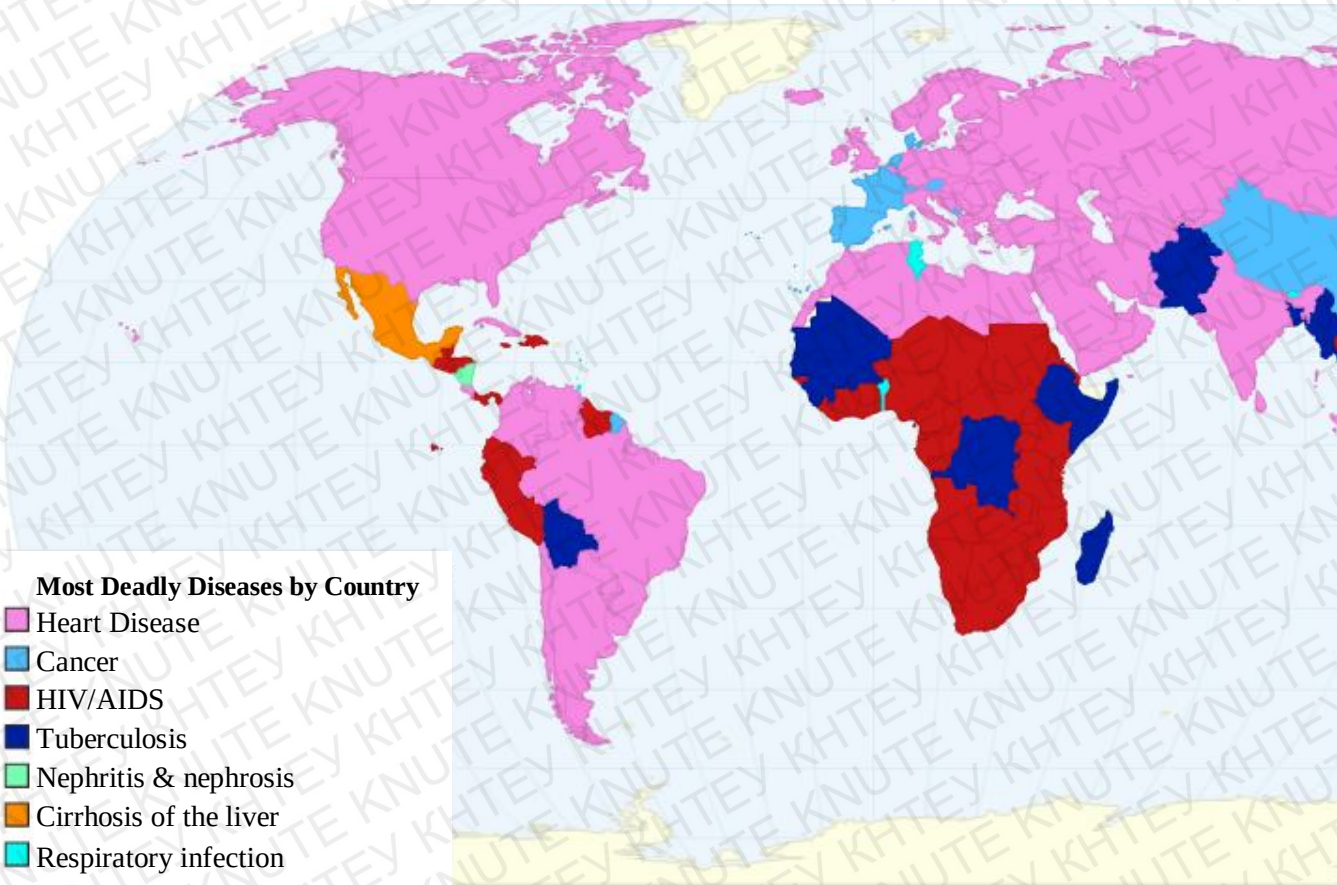


Figure 1 Geographical breakdown (by main markets) of sales of new medicines launched during the period 2012-2017, %

Note: Europe (Top 5) comprises Germany, France, Italy, Spain and United Kingdom; pharmerging comprises 21 countries: Algeria, Argentina, Bangladesh, Brazil, Colombia, Chile, China, Egypt, India, Indonesia, Kazakhstan, Mexico, Nigeria, Pakistan, Philippines, Poland, Russia, Saudi Arabia, South Africa, Turkey and Vietnam.

Source: compiled by the author based on EFPIA. The Pharmaceutical Industry in Figures 2018 [Electronic resource]. – Available at: https://www.efpia.eu/media/361960/efpia-pharmafigures2018_v07-hq.pdf

A map of the most common diseases in every country in the wor



Source: Pablic radio International. Global Post: This map shows which disease is most likely to kill you depe

resource]. – Available at: http://www.globalpost.com/dispatch/news/health/140610/map-most-de

Appendix J

Medicine taxes in Europe, %

Country	Standard VAT rate %	Medicine VAT rate %	Differential VAT rate for medicines %
Norway	25	25	
Sweden	25	25	0% prescription only medicines
Denmark	25	25	
Ireland	21	21,5	0% oral medicines
Bulgaria	20	20	
Germany	19	19	
UK	17,5	17,5 OTC	0% NHS products
Greece	23	11	
Latvia	21	10	
Italy	20	10	
Austria	20	10	
Slovak Rep	19	10	
Czech Rep	20	10	
Romania	24	9 prescription only	12% OTC products
Estonia	20	9	
Finland	23	9	
Slovenia	20	8,5	
Turkey	18	8	
Poland	22	7	
Belgium	21	6	
Netherlands	19	6	
Portugal	21	6	
Lithuania	21	5 reimbursables	21 OTC products
Hungary	25	5	
Spain	18	4	
Luxembourg	15	3	
Switzerland	7,6	2,4	
France	19,6	2,1 reimbursables	5.5 non-reimbursable
Malta	18	0	
Cyprus	15	0	15 diagnostic agents

Source: World Health Organization. WHO/HAI Project on Medicine Prices and Availability [Electronic resource].- P. 1-33. – Available at: http://haiweb.org/wp-content/uploads/2015/08/Taxes-final-May2011a1.pdf

Appendix K

Variations in US sales tax and medicine taxes, %

State	General Tax %	Max local surtax %	Prescription Medicine Tax %	Non-prescription Medicine Tax %
Alabama	4	10	Exempt	4
Alaska	0	7	0	0
Arizona	6,6	10,6	Exempt	6,6
Arkansas	6	6	Exempt	6
California	8.25	10.75	Exempt	8.25
Colorado	2.9	8	2.9	2.9
Connecticut	6	6	Exempt	Exempt
Delaware	0	0	0	0
District of Columbia	6	6	Exempt	Exempt
Florida	6	7.5	Exempt	6
Georgia	4	8%	4	4
Hawaii	4%	4.712	4	4
Idaho	6	6	6	6
Illinois	6.25	11.5	1%+	1%+
Indiana	7	9	Exempt	7
Iowa	6	7	Exempt	6
Kansas	5,3	8,65	5,3	5,3
Kentucky	6	6	Exempt	6
Louisiana	4	9	4	4
Maine	5	5	Exempt	5
Maryland	6	6	Exempt	6
Massachusetts	6,25	6,25	Exempt	6,25
Michigan	6	6	Exempt	6
Minnesota	6,875	7,5	Exempt	6,875
Mississippi	7	9	7	7
Missouri	4,225	9,241	4,2	4,2
Montana	0	3	0	0
Nebraska	5,5	7	5,5	5,5
Nevada	6,85	13	6,85	6,85
New Hampshire	0	0	0	0
New Jersey	7	7	Exempt	7
New Mexico	5,125	8,5625	5,125	5,125
New York	4	8,875	Exempt	Exempt
North Carolina	5,5	8,25	Exempt	5,5
North Dakota	5	5	5	5
Ohio	5,5	7,75	Exempt	5,5
Oklahoma	4,5	8,5	4,5	4,5
Oregon	0	0	0	0
Pennsylvania	6	8	Exempt	Exempt
Puerto Rico	5,5	7	Exempt	5,5
Rhode Island	7	7	Exempt	7
South Carolina	6	9	Exempt	6
South Dakota	4	6	4	4
Tennessee	7	9,75	7	7

State	General Tax %	Max local surtax %	Prescription Medicine Tax %	Non-prescription Medicine Tax %
Texas	6,25	8,25	Exempt	Exempt
Utah	4,75	8,35	4,75	4,75
Vermont	6	7	Exempt	Exempt
Virginia	4	5	Exempt	Exempt
Washington	6,5	9,5	Exempt	6,5
West Virginia	6	6	Exempt	6
Wisconsin	5	5,6	Exempt	5
Wyoming	4	7	4	4

Source: World Health Organization. WHO/HAI Project on Medicine Prices and Availability [Electronic resource].- P. 1-33. – Available at: http://haiweb.org/wp-content/uploads/2015/08/Taxes-final-May2011a1.pdf

Appendix L

Domestic tax rates on medicines in selected low- and middle- income countries, %

Country and Survey Year	VAT or sales tax %	Other taxes on medicines	Total domestic tax charges %
Armenia 2001	20		20
Bolivia 2008	13		13
Brazil 2001	18	6% state tax	24
Chad 2004		2% statistical tax (public and private sector) , 0,9% purchase verification tax (private sector)	2,9
China 2004/6	17	3% regional sales tax	20
Congo 2007	18	1% community tax	19
Dem. Rep. of Congo 2007	0	17% turnover+other taxes	17
El Salvador 2006	13		13
Ghana 2004	15% VAT +NHIL**		15
India 2003/4	Was 6,5 – 9,8 sales tax, now 5% VAT on most medicines	5 -16% state excise duty 3% national education "cess"	13-24
Indonesia 2004	10		10
Jordan 2007	4% sales tax		4,0
Kyrgyzstan 2005	4% sales tax		4
Mali 2004		8% taxes and fees	8
Mongolia 2004	15	6% stamp duty and other fees	21
Morocco 2004	7 (some exemptions)		7
Nigeria 2004		"Multiple tax regimes" > 30% other fees	30
Peru 2005	12 (some exceptions)	19% GST +2% local tax, some exemptions	34
Philippines 2008	12		12
South Africa 2004	14		14
Tajikistan 2005	20	1-5% sales tax	21-25
Tunisia 2004	6 (locally manufactured meds)		6
Yemen 2006	5		5
Average 23 countries			**Approx. 14.8% Range 2.9 – 34%**

Source:World Health Organization. WHO/HAI Project on Medicine Prices and Availability [Electronic resource].- P. 1-33. – Available at: http://haiweb.org/wp-content/uploads/2015/08/Taxes-final-May2011a1.pdf

Appendix M

Dynamics of the effect and efficiency of export

of PJSC "MONPHARM" on the market of the Republic of Belarus in 2013-2014, thousand US dollar, hryvnia

Name of suppositories	2013		2014		2015		2016		2017	
	Exchange rate, UAH									
	7,99		15,76		23,79		27,19		28,07	
	Expenditure on the export of products, thousand UAH									
	275,63		555,61		856,74		1 010,10		1 064,08	
	Production costs, thousand UAH	**Export revenue, thousand USD**	**Production costs, thousand UAH**	**Export revenue, thousand USD**	**Production costs, thousand UAH**	**Export revenue, thousand USD**	**Production costs, thousand UAH**	**Export revenue, thousand USD**	**Production costs, thousand UAH**	**Export revenue, thousand USD**
Diclofenac	-	-	-	-	12101,86	640,82	13696,47	704,97	13696,47	697,06
Methyluracil	6 117,90	924,80	14 045,59	1 099,55	23 850,06	1 262,92	26 992,69	1 389,34	26 992,69	1 373,74
Metronidazole	-	-	-	-	-	-	13 390,32	689,21	13 390,32	681,48
Ichthyol	11 129,31	1 682,34	25 550,87	2 000,24	43 386,56	2 297,43	49 103,45	2 527,40	49 103,45	2 499,03
Anusol	9 152,82	1 383,57	21 013,21	1 645,01	35 681,41	1 889,42	40 383,02	2 078,55	40 383,02	2 055,22
Paracetamol	8 145,88	1 231,36	18 701,48	1 464,04	31 755,97	1 681,56	35 940,34	1 849,88	35 940,34	1 829,12
Nystatin	-	-	-	-	16 035,03	849,10	18 147,91	934,09	18 147,91	923,60
Ophthalmic suppositories	-	-	9 271,00	725,78	15 742,59	833,61	17 816,93	917,05	17 816,93	906,76
Belladonnae extract	5 545,76	838,31	12 732,07	996,73	21 619,64	1 144,81	24 468,39	1 259,41	24 468,39	1 245,27
Sum	40 091,67	6 060,38	101 314,23	7 931,35	200 173,11	10 599,67	239 939,53	12 349,90	239 939,53	12 211,28
Sum, UAH	40 091,67	48 422,40	101 314,23	124 998,08	200 173,11	252 166,12	239 939,53	335 793,89	239 939,53	342 770,75
Export efficiency, for a year										
All products	1,20		1,23		1,25		1,39		1,42	
Effect on exports, for a year, UAH										
All products	8 055,11		23 128,24		51 136,27		94 844,26		101 767,15	

Source: compiled by the author based on the own calculations

Appendix N

DIRECTIVE 2001/83/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

TITLE III

PLACING ON THE MARKET

CHAPTER 1

Marketing authorisation

Article 8

1. In order to obtain an authorization to place a medicinal product on the market regardless of the procedure established by Regulation (EEC) No 2309/93, an application shall be made to the competent authority of the Member State concerned.

2. A marketing authorization may only be granted to an applicant established in the Community.

3. The application shall be accompanied by the following particulars and documents, submitted in accordance with Annex I:

(a) Name or corporate name and permanent address of the applicant and, where applicable, of the manufacturer.

(b) Name of the medicinal product.

(c) Qualitative and quantitative particulars of all the constituents of the medicinal product, including the reference to its international nonproprietary name (INN) recommended by the WHO, where an INN for the medicinal product exists, or a reference to the relevant chemical name. (ca) Evaluation of the potential environmental risks posed by the medicinal product. This impact shall be assessed and, on a case-by-case basis, specific arrangements to limit it shall be envisaged.

(d) Description of the manufacturing method.

(e) Therapeutic indications, contraindications and adverse reactions.

(f) Posology, pharmaceutical form, method and route of administration and expected shelf life.

(g) Reasons for any precautionary and safety measures to be taken for the storage of the medicinal product, its administration to patients and for the disposal of waste products, together with an indication of potential risks presented by the medicinal product for the environment.

(h) Description of the control methods employed by the manufacturer. (ha) A written confirmation that the manufacturer of the medicinal product has verified compliance of the manufacturer of the active substance with principles and guidelines of good manufacturing practice by conducting audits, in accordance with point (f) of Article 46. The written confirmation shall contain a reference to the date of the audit and a declaration that the outcome of the audit confirms that the manufacturing complies with the principles and guidelines of good manufacturing practice.

(i) Results of:

- pharmaceutical (physico-chemical, biological or microbiological) tests,
- pre-clinical (toxicological and pharmacological) tests,
- clinical trials.

(ia) A summary of the applicant’s pharmacovigilance system which shall include the following elements:

— proof that the applicant has at his disposal a qualified person responsible for pharmacovigilance,

— the Member States in which the qualified person resides and carries out his/her tasks,

— the contact details of the qualified person,

— a statement signed by the applicant to the effect that the applicant has the necessary means to fulfil the tasks and responsibilities listed in Title IX,

— a reference to the location where the pharmacovigilance system master file for the medicinal product is kept.

(iaa) The risk management plan describing the risk management system which the applicant will introduce for the medicinal product concerned, together with a summary thereof.

(ib) A statement to the effect that clinical trials carried out outside the European Union meets the ethical requirements of Directive 2001/20/EC.

(j) A summary, in accordance with Article 11, of the product characteristics, a mock-up of the outer packaging, containing the details provided for in Article 54, and of the immediate packaging of the medicinal product, containing the details provided for in Article 55, together with a package leaflet in accordance with Article 59.

(k) A document showing that the manufacturer is authorised in his own country to produce medicinal products.

(l) Copies of the following:

— any authorisation, obtained in another Member State or in a third country, to place the medicinal product on the market, a summary of the safety data including the data contained in the periodic safety update reports, where available, and suspected adverse reactions reports, together with a list of those Member States in which an application for authorisation submitted in accordance with this Directive is under examination;

— the summary of the product characteristics proposed by the applicant in accordance with Article 11 or approved by the competent authorities of the Member State in accordance with Article 21 and the package leaflet proposed in accordance with Article 59 or approved by the competent authorities of the Member State in accordance with Article 61;

— details of any decision to refuse authorisation, whether in the Union or in a third country, and the reasons for such a decision.

(m) A copy of any designation of the medicinal product as an orphan medicinal product under Regulation (EC) No 141/2000 of the European Parliament and of the Council of 16 December 1999 on orphan medicinal products28, accompanied by a copy of the relevant Agency opinion.

The documents and information concerning the results of the pharmaceutical and pre-clinical tests and the clinical trials referred to in point (i) of the first subparagraph shall be accompanied by detailed summaries in accordance with Article 12.

CHAPTER 3

Procedures relevant to the marketing authorisation

Article 21a

In addition to the provisions laid down in Article 19, a marketing authorisation for a medicinal product may be granted subject to one or more of the following conditions:

(a) to take certain measures for ensuring the safe use of the medicinal product to be included in the risk management system;

(b) to conduct post-authorisation safety studies;

(c) to comply with obligations on the recording or reporting of suspected adverse reactions which are stricter than those referred to in Title IX;

(d) any other conditions or restrictions with regard to the safe and effective use of the medicinal product;

(e) the existence of an adequate pharmacovigilance system;

(f) to conduct post-authorisation efficacy studies where concerns relating to some aspects of the efficacy of the medicinal product are identified and can be resolved only after the medicinal product has been marketed. Such an obligation to conduct such studies shall be based on the delegated acts adopted pursuant to Article 22b while taking into account the scientific guidance referred to in Article 108a.

The marketing authorisation shall lay down deadlines for the fulfilment of these conditions where necessary.

Article 22a

1. After the granting of a marketing authorisation, the national competent authority may impose an obligation on the marketing authorisation holder:

(a) to conduct a post-authorisation safety study if there are concerns about the risks of an authorised medicinal product. If the same concerns apply to more than one medicinal product, the national competent authority shall, following consultation with the Pharmacovigilance Risk Assessment Committee, encourage the marketing authorisation holders concerned to conduct a joint post- authorisation safety study;

(b) to conduct a post-authorisation efficacy study when the understanding of the disease or the clinical methodology indicate that previous efficacy evaluations might have to be revised significantly. The obligation to conduct the post-authorisation efficacy study shall be based on the delegated acts adopted pursuant to Article 22b while taking into account the scientific guidance referred to in Article 108a.

Source: Public Health Europe - European Commission [Electronic resource]. – Available at: https://ec.europa.eu/health/sites /health/files/files/eudralex/vol-1/dir_2001_83_ consol_2012/dir_ 2001_83_cons_2012_en.pdf

Appendix O

Characteristics of advertising policy in the EU and other countries

A country	OTC advertising to the general public	Advertising prescription drugs for the general public	Advertising for the professional community	Comparative advertising	Ad	
					Preliminary approval	Postco
Czech Republic	+	—	+	—	Unknown *	Unkno
France	+	—	+	—	+	—
Germany	+	—	+	+ (only prices)	—	+
Hungary	+	—	+	+	+	+
Italy	+	—	+	—	+	—
Poland	+	—	+	Unknown *	—	+
Romania	+	—	+	—	+	+
Slovakia	+	—	+	Unknown *	—	+
Spain	+	—	+	—	—	+

Source: Specialized online newspaper Apteka.UA: “Drug advertising - global practices: prohibition, freedom or something in between?” [Electronic resource]. – Available at: https://www.apteka.ua/article/343130