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Strategic Management in Pharmaceutics Development under World Economic Globalization Transformations

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Abstract

Purpose of the study: to formulate approaches to strategic management of the pharmaceutical industry in Ukraine under globalization transformations of the world economy. Methodology: the following research methods were used: graphic modeling, analytical and structural-logical methods for economic justification of the efficiency of the presented economic and statistical calculations, as well as systematization and generalization of indicators. Results: Tendencies in the global pharmaceutical market are analyzed in the paper, particularly, the world experience of government pharmaceutical regulation. Changes for 2010-2017 in the dynamics of production of the main types of pharmaceuticals are analyzed. A tendency of growth in output value is revealed to be stable, operational profitability to be increased and the number of manufacturers to be decreased due to reducing small businesses. The growth of manufacturing capacity of pharmaceutical companies is evidenced by an increase in the common currency mainly due to the attracted capital. The role and significance of the pharmaceutical industry for development of the country are described herein. Tendencies of globalization and their influence on the pharmaceutics development are analyzed. According to the analysis results, a model to form a strategy for the pharmaceutics development was proposed that includes two outlines: one outline represents the core of the enterprise strategy, strategic development directions and principles, and the other is a set of functional strategies subordinated to the global strategy but providing a flexible mechanism to monitor and adjust changes. The scheme of formation of the strategy for pharmaceutics development in Ukraine is offered to implement the proposed model. The purpose of the research is to determine the essence of the concept of strategic management and its importance for the pharmaceutical industry in Ukraine. Applications of this study: contains substantiations on certain negative aspects for the national security of the country in globalization, predicting the market monopolization and increased competition, but also on certain positive aspects in the possibility of creating innovative clusters through technology transfer, quality improvement, and so on. However, positive benefits of globalization can be enjoyed only upon formation of the system of rapid response to challenges and opportunities of the modern market. Novelty/Originality of this study: Processes, methods and approaches of pharmaceutical development management have been studied in our country throughout the period of formation and development of Ukraine as an independent state. However, mostly, the studies are characterized by fragmentary nature and address certain aspects of improving the industry's functioning: increasing its competitiveness, investment attractiveness, innovations, marketing, logistics, and state government. At the same time, we did not find a comprehensive study on the strategy for the stable development of pharmacy.

Keywords: Pharmaceutical Industry, Manufacture, Dynamics, Development, Tendencies, Import Substitution.

1 Introduction

Currently the world economy is under transformation, the world picture keeps changing, resulting in changed development directions and leaders in each economy branches. Today, information and telecommunication technologies, robot-building, genetic and bioengineering are believed to be the main world-leading industries (3,4,8,9,15,20,25,30,31,33,34). The growth of these industries show the world development move from the primary industries (metallurgy, mining, etc.) to the third new group, aimed at meeting individual's needs (1,5,16,21,24,29,35). The pharmaceutical industry is considered to be one of the most important and powerful economy segments in any country. Besides the pharmaceutical industry is a strategically important sector of the country's economy ensuring health care, therefore the level of the pharmaceutical industry development determines the national security and health of the nation. In addition, the pharmaceutical industry is assumed to be high-tech and science-intensive and to act as one of the locomotives of the world's economic growth. So, according to forecasts, in 2017-2021, it will increase by 34% - to $1,485 trillion. Almost a quarter of this increase is expected to be provided by countries with emerging pharmaceutical markets. Thus to find a strategy for development of the domestic pharmaceutical industry seems to be very urgent to create a super-powerful cluster of economy.

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2 Literature Review

Processes, methods and approaches of pharmaceutical development management have been studied in our country throughout the period of formation and development of Ukraine as an independent state. So, the issues of import substitution, described by E.M. Bilousov (2) and others, seemed to be relevant enough. The scientists rightly point out the need to apply the import substitution strategy, because it corresponds to the goal of the pharmaceutical market development - to meet the population needs in high-quality medicines of domestic production. The issues of strategic development of enterprises are discussed by Dorovsky (6) who considers applicability in our country of the experience of developed countries leading in the pharmaceutical industry and offers to gradually apply an export-oriented development strategy. Also issues on justification and implementation of the sustainable development concept in the pharmaceutics management in Ukraine are thoroughly investigated by Moroz et al. (19). Fundamental researches by Kotvitska and Kostiuk, Pashkov, Strapchuk should be distinguished among works by the scientists involved in the pharmaceutics analysis (13,23,28) . Certain aspects of the analysis of the pharmaceutical market were highlighted in the works by Shabelnik (10,27).

However, mostly, the studies are characterized by fragmentary nature and address certain aspects of improving the industry's functioning: increasing its competitiveness, investment attractiveness, innovations, marketing, logistics, and state government (26; 36). At the same time, we did not find a comprehensive study on the strategy for the stable development of pharmacy.

The purpose of the article is to formulate approaches to strategic management of the pharmaceutical industry in Ukraine under globalization transformations of the world economy.

3 Results

An important element of the government management system is the pharmaceutical industry management with a significant role both in the health care system and in the economy in general. Ukrainian pharmacy was historically a leader in scientific, educational, and manufacturing spheres, so it is believed to be a strategically important component of the macroeconomic complex of the country. Over the years of Ukraine's independence, approaches to pharmacy and public authorities have been constantly changing: the search for effective principles of state government and their relationship - integrated and sectoral, organizational and structural-functional, centralization and decentralization - were sometimes complex, sometimes chaotic (7,18,19).

The pharmaceutical market is currently considered to be one of the key drivers of global economic growth. The market structure is constantly changing - there is a tendency to territorial redistribution of the global pharmaceutical market. For 2012-2014, the share of Japan and the countries of North America, Europe decreased from 71.0% to 66.1%, while in Asia and Africa increased from 17.44% to 20.14% and in Latin America - from 7.4% to 8.8%. According to the data of 2016-2017, the share of the United States of America was 64.7%, Europe - 17.5%, Japan - 7.3%, of other countries - 9.4%, and IMS Health, an analytical company, basing on economic indicators has allocated a group of 21 countries, named "Pharmerging markets". It was also divided into three categories: the first included China, the second - Brazil, India and Russia, the third - 17 countries with large population and great prospects for growth. According to analytical data, IMS analyzes the "Pharmerging markets" group separately because unlike traditional markets with an average level of 1-4% growth, "Pharmerging markets" show an average growth by 11-15%. In 2017, the market of this group reached 405 billion US dollars, accounting for 33.8% of the world pharmaceutical market.

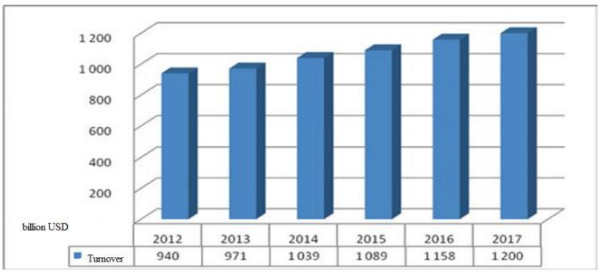

Figure 1: Dynamics of the world pharmaceutical market development in 2012-2017, billion USD

The growth in demand in the global pharmaceutical market was due to increased population, primarily in Asia and Africa, increased life expectancy of the population at birth, population aging and an increase in its chronic diseases, incomes, as well as the governments' policy regarding growth of state budget expenditures on health care.

The Ukrainian pharmaceutical market is also influenced by global trends and during the last period its growth was almost 20%. (Fig. 2)

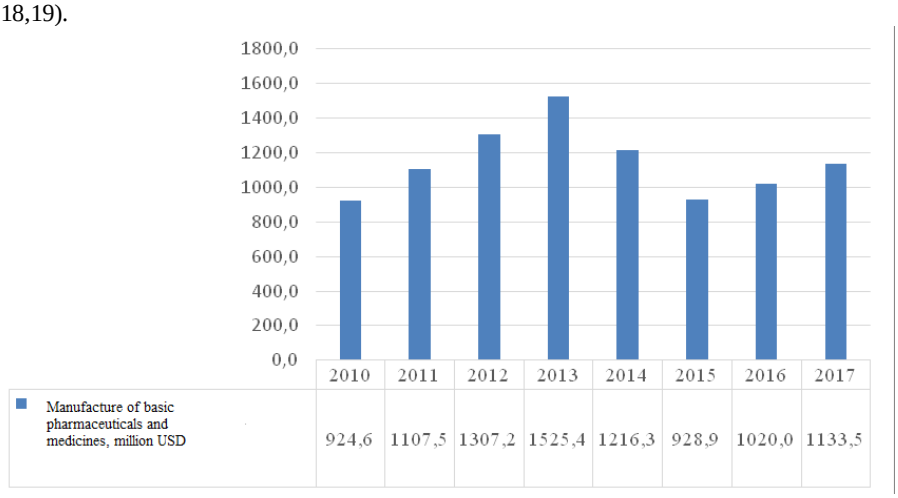

Figure 2: Manufacture of basic pharmaceuticals and medicines, million USD (32)

According to researchers in 2017, both retail sales of drugs and hospital procurements increased. Thus, retail sales in monetary terms increased by 21% to UAH 61.2 billion; in natural units - by 7%, up to 1.115 billion packages. Hospital procurements in money terms increased by 10% to UAH 8.8 billion; in nature - by 15%, up to 109 million packages. However, according to the research, one Ukrainian spends on average $ 62 for medications over a year, while a resident of the UK - $ 383, Sweden - $ 501, Canada - $ 587.

One of the key historical events that determine the world economy development is globalization. As Pashkov bnoted in his paper, with globalization tools, 15% of the world's population, mostly in Europe and the United States, consume 75% of all human resources, and 85% of the remaining population consume 25% of resources (22, 23). We can say that globalization has become an attribute of the modern economy. The most active actors and drivers of globalization are Transnational Corporations (TNCs), which are considered to be the main driving force of globalization and key element of the entire modern international economy. Under their influence, international trade is less consistent with principles of so-called free trade, since most operations, especially in the pharmaceutical market, are conducted between subsidiaries of international business entities.

The modern pharmaceutical industry is a global business investing in research and development. Consequently, the pharmaceutical market should be seen as an object affected by globalization in all its manifestations. The global pharmaceutical industry has been transforming significantly over the last decade. Intense globalization, complicated parameters determining the product competitiveness and characterizing the company's intense struggle for the global market share, create new opportunities for enterprises and, at the same time, determine new obstacles. In addition, the pharmaceutical market has certain features that distinguish it from other markets:

- diverse drug assortment,
- long development cycle,
- high knowledge intensity,
- inelastic demand,
- dependence of demand on epidemics, natural disasters and other extreme events.

Consequently, the pharmaceutical market as a part of the market for consumer goods and services is characterized by a tendency towards globalization caused by: the common need for all humanity in health care and the natural desire to increase the life expectancy; the similar dynamics and prevalence of main diseases in different countries; search for the most effective medicines; the high cost of development and implementation of new drugs, requiring efforts worldwide; the aspiration of pharmaceutical companies to widen the business boundaries as much as possible and to get a larger market share (17).

Characteristics of pharmaceutical TNCs operation can be determined:

- strong positions in most strategic global pharmaceutical markets; globally integrated, so national characteristics are not critical;
- implemented flexible purchasing strategies;
- global production structure;
- global organization of research and development works;
- global marketing organization that supports strong market orientation and strategic customer orientation.

The pharmaceutical market globalization is also characterized by a growing capital concentration through companies' activities and mergers (22). In recent years, the pharmaceutical market was highly affected by the merger of the following companies:

- Smithkline Beckman + Beecham = Smithkline Beecham (UK);
- American Home Products + American Cyanamid = American Home Products (USA);
- Glaxo + Welcome = Glaxo Welcome (UK);
- Roche + Syntex = Roche (Fr); 2009 - Ciba + Sandor = Novartis (Swiss);
- Pharmacia (Sweden) + Upjohn (USA) = Pharmacia & Upjohn + Pfizer = Pfizer.

According to Pharma Business News, only 50 world's largest collaborators remain by 2020. Pricewaterhouse Coopers analysts argue that mergers will continue until 5-10 pharmaceutical companies with a strong research base are established. Klunko states, that the collaboration intensification in the global pharmaceutical industry can be predicted to result in even larger pharmaceutical conglomerates appear and to accelerate the total market oligopolization (11,12).

Pashkov notes that the main reason for mergers of big corporations into larger structures is to increase their costs for research and development works (23). The research-based pharmaceutical industry can play a critical role in restoring Europe to growth and ensuring future competitiveness in an advancing global economy. In 2016 it invested an estimated € 35,000 million in R&D in Europe. It directly employs some 745,000 people and generates three to four times more employment indirectly – upstream and downstream – than it does directly. However, the sector faces real challenges. Besides the additional regulatory hurdles and escalating R&D costs, the sector has been severely hit by the impact of fiscal austerity measures introduced by governments across much of Europe since 2010.

Costs for development of new medications and terms for their implementation are significantly increased. In order to successfully compete with others, the company needs to produce annually several new original drugs (brands), but it requires up to 10 years of researches and hundreds of millions of dollars a year. Such risky and long-term projects require finances.

Consequently, the common science budgets of large pharmaceutical companies make annually from one to seven billion dollars. USA (17). Globalization has vague consequences: on the one hand, the company within the multinational company is less responsive to negative fluctuations of the external environment, and on the other hand, profits go to the country of a parent enterprise.

Today, pharmaceutical companies in Ukraine face problems associated with the need to identify further ways of its development under significant reduction of export potential, increased competition in the domestic pharmaceutical market and low purchasing power of the population, on the one hand, and the need to ensure availability and high quality of medicines as the main priorities, on the other hand.

According to the industrial product portfolio classification (2014), intended for international comparison, pharmaceutical products are represented by two groups - manufacture of pharmaceutical products and medications:

1) basic pharmaceutical products (manufacture of active substances with pharmacological properties used for the drug production;

2) pharmaceutical medications and materials.

Sales of pharmaceutical products in Ukraine in 2017 increased by 20% - up to 70 billion UAH. In natural units, growth is 7% - up to 1,224 billion packages (28).

Table 1: Main indicators of the manufacturers of basic pharmaceutical products and medications in 2011-2016

Indicators	2011	2012	2013	2014	2015	2016*
Number of enterprises	315	254	248	233	229	196
Large	4	5	7	5	5	6
Medium	61	62	63	61	60	58
Small	250	187	178	167	164	132
Number of employees, thousand people	21.1	23	24.2	23.5	22.8	1.3
Costs of enterprises, mln. hryvna	1043.1	1331.6	1614	1820.9	2387.3	n/a
Product sales, mln. hryvna	9334.1	11505.6	13677,2	15729.7	21500.9	891.8
Net profit (loss) of enterprises, thousand hryvna	619.4	916.4	1068	501	1485.8	127.5
Cost effectiveness of enterprises' operational activity, %	13.2	14	15.2	14.9	17.2	12.2

* Data are provided only for small enterprises according to the data of the State Statistics Committee (2018)

The trend to import dependence is also confirmed by the fact, according to the World Health Organization (WHO), that domestic medicinal products (MP) occupies just 30% of the Ukrainian pharmaceutical market in value terms, and the share of imported medicines is about 70% (13). Ukrainian manufacturers are in unequal conditions with foreign competitors: for the last 10 years, there was a tendency towards a decrease in the share of domestic medicinal products from 39% in monetary terms in the pharmaceutical market in 2005 year to 25% in 2010. This situation is explained by several circumstances, since the ratio of the cost of domestic and foreign drugs today is 1:5. Drug sales volumes in physical terms (in packages) are 2:1, that is, 66% of domestic drugs account for 34% of foreign medicines. However sales volumes on the contrary make 1:3, that is, 25% of domestic versus 75% of imported. This demonstrates significantly lower prices on domestic drugs and their affordability.

Besides, a study was conducted on exports and imports of pharmaceutical products from 2012 to 2018 (Fig. 3).

The analysis shows that 93% of Ukrainian pharmaceuticals are exported to CIS countries, however pharmaceuticals import from these countries makes only 4.5%. According to the studying the Ukrainian pharmaceutical market state, the market seems to require further development, investment attraction, restructure and diversification of the export structure by increasing a share of high-tech products that meet international standards.

Besides a significant share of imported products, the Ukrainian pharmaceutical market has an appropriate structure: original medicines make 4% in natural units, or 16% in monetary terms; generics - 35% in both natural units and monetary terms; other (traditional, herbal, immunobiological, etc.) drugs make 61% in natural units and 49% in monetary terms. Also, the Ukrainian pharmaceutical market is characterized by a great share of generics (their share makes 90% in the Ukrainian market). According to the State Statistics Service of Ukraine, on average, the Ukrainian spends on medications 8.1% of income, ranking the fourth place in the budget (6,32). Obviously, a further significant increase in consumer spending on medicines is expected due to population aging and environment deterioration. Thus requirements for the supply and drug quality will also increase steadily. Ukraine ranks fourth among the CIS countries for the drug consumption. And the Ukrainian level of $ 48 per capita is lower versus to Europe. Thus, in the Czech Republic, this indicator is 331 dollars, in Slovakia - 254 dollars, in Poland - 154 dollars. So we can conclude that there is a significant potential for growth in the Ukrainian pharmaceuticals market volume. Another important factor in the market growth in monetary terms is transition of domestic drug manufacturers to the high price drug production, whereas historically they specialized in cheap products, unlike foreign companies.

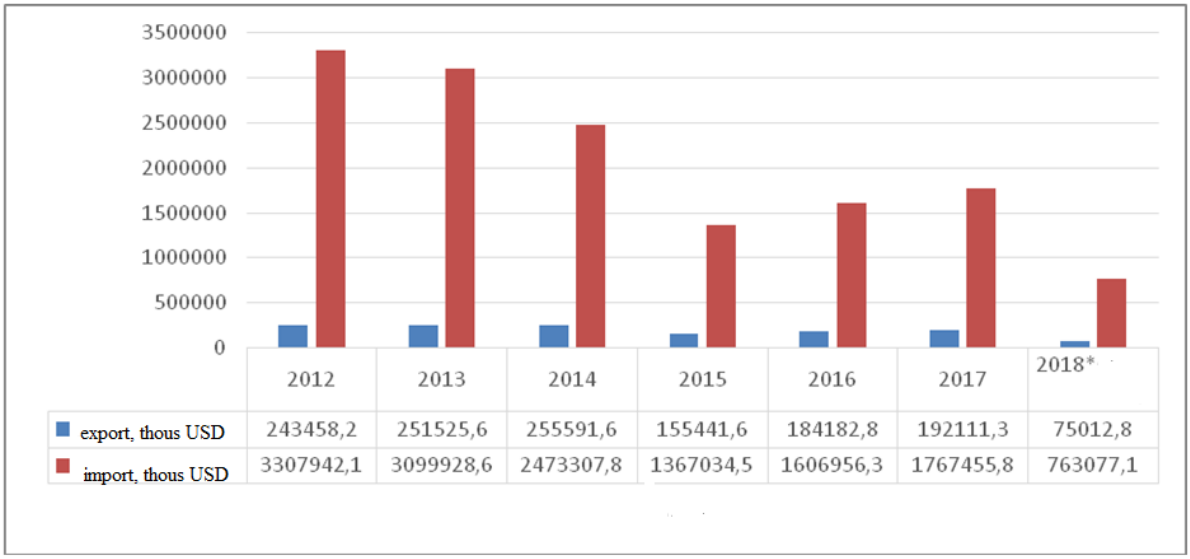

Figure 3: Volume of export and import of pharmaceuticals in Ukraine, 2012-2018

At the same time, all participants in the pharmaceutical market of Ukraine, forming its structure, can be divided into the following main groups:

- Domestic manufacturers which meet the European GMP standards;
- Eastern European producers (KRKA, GedeonRichter), long-term suppliers for the Ukrainian market;
- New generic companies (Actavis, Zentiva), characterized by flexible pricing and fast formation of the product range;
- Innovative producers (Novartis, Sanofi-Aventis), developing new approaches to treatment, have a broad evidence base, but also higher prices;
- Niche companies (MiliHealthcare, Heel) with successful positions in certain markets.

Consequently, this heterogeneity of the market structure and the significant influence of the foreign policy and economic situation make the national pharmaceutical industry face general problems of choosing a strategy and strategic development methods taking into account the globalization influence.

Tendencies to globalization and concentration of the global pharmaceutical market through mergers and acquisitions of large companies are observed. An analysis of tendencies in the global pharmaceutical market suggests certain factors, incentive and disincentive for its growth. And considering the deep interconnection and interdependence of our country's economy with world tendencies, a development strategy for the domestic pharmaceutical market should be based on deep understanding of the mechanism of interaction of these factors.

Some researchers, in particular E.M. Bilousov et al. (2), distinguish both positive and negative sides in globalization regarding each country. Negative ones include, firstly, state institutions' service for interests of international corporations, which in practice weaken the national manufacturers' interests, moving them out of external markets. Secondly, the economy power usurpation by the developed countries. Thirdly, the weakening of the country's sovereignty by limiting opportunities for choosing activities in foreign markets. Fourthly, increased requirements of regulatory documents of interstate entities in relation to the national legislation of a particular country. E.M. Bilousov et al. (2) considers the improved economic state by attracting investments, bank capital, a single monetary currency, mutual funds, etc, to be positive aspects of globalization from the point of view of ensuring the sovereignty of a particular country. In general, the analysis of modern interstate cooperation allows to state that the regulatory mechanisms resulted by such cooperation show different effectiveness depending on its scope (2).

The main globalization factors influencing development of the pharmaceutical industry can be divided into two directions: factors-stabilizers and factors-destabilizers. For example, technology transfer can be considered as a positive factor-stabilizer, which increases the product innovation, the technological level of the pharmaceutical industry, which should expand markets in the future. The unification of the treatment standards and the medicines quality will require additional funding soon, that means additional costs for equipment, laboratory, training, but in the long term, will enable to offer the products in a larger number of markets, and to increase the quality of the provided medicinal services, and thus to raise the level of national security.

Thus, strategic management of the pharmaceutical industry development in Ukraine should be aimed at maintaining the positive influence of factors-stabilizers and forecasting and minimizing the negative effects of destabilizing factors.

In world practice, considerable experience has been gained in the pharmaceutical regulatory approaches. In many countries, including the former Soviet Union republics, certain laws on the legal regulation of the medicines circulation and pharmaceutical activities, drug quality control, etc. have been developed.

According to data published in the report by R. Gerster, transnational companies dominated in the Indian market by 1970 which accounted for 85% of the pharmaceutical market in monetary terms. Everything changed after the 1970 Patent Act adoption that dramatically affected the Indian pharmaceutical market structure. Clause 83 of this Act states that patents are granted to encourage inventions and to secure that the inventions are worked in India on a commercial scale, however they are not granted merely to enable patentees to enjoy a monopoly for the importation of the patented article. The main feature of the act was not the denial of patent rights - the state recognizes them and is ready to pay for them, but to prevent the monopolization of the activities of large companies. In the Indian pharmaceutical sector, only technological features of those productions are currently patented, which patent protection lasts for 7 years. Besides the state reserves the right to independently grant licenses for drugs in case if a patent holder refuses to do so on fair terms. As a result, over 20 years, the share of multinational companies in the Indian pharmaceutical market has decreased by more than twice - up to 40% (12).

Domestic researchers also consider the possibility of forming a strategy for the pharmaceutical market development. For example, the authors (27) consider the strategy of sustainable development, which consists of economic, ecological and social and institutional aspects. The national sustainable development strategy, currently being actively discussed, has a platform for forming the sustainable development strategy and goals: availability of medicines, quality and rational use. By the way, development and implementation of the National Drug Policy were required by the World Health Organization for each country, and it should define the goals set by the government for the pharmaceutical sector and determine the strategy for their achievement.

Klunko substantiates in her work the need to use an import substitution strategy aimed at increasing the use of internal reserves and treatment protocols which involve local generics, not imported original medicines (11). However, the import substitution strategy is considered to be part of a common strategy, and the main direction of the industry development should be in transition to the use of both strategies - import substitution and export orientation.

Dorovsky examines the experience of Turkey and the opportunity to stimulate the production of generics and original drugs under the pharmaceutical manufacturers' (6) licenses and offers the following strategic development areas: joint ventures, quality standards compliance, concentration in biotechnology developments.

E.M. Bilousov et al. (2) offers a special mode of management in the pharmaceutical market under globalization, namely:
- government regulation of relations in the pharmaceutical activity; creation of conditions for economic competition;
- approximation of requirements of the state standards for pharmaceutical products, production technologies, and measurement and assessment methods to the relevant standards, technologies, means and methods applied in the EU;
- economic stimulation of the production of drugs and medical devices in Ukraine; scientifically grounded state regulation of drug prices and tariffs; compliance with the rules, norms and standards by all subjects of pharmaceutical activity;
- licensing of economic activities on the medicine production, import and sale as a separate component of pharmaceutical products; priority of medicine provision not other types of pharmaceutical activity; guaranteed reimbursement of the population' expenses for prescribed drugs; use of high-quality and proven efficacy of pharmaceutical products; providing free access to information on the drug quality and efficacy.

The regulation system of the pharmaceutical industry consists of international, regional and national levels (Fig. 3) and this confirms that the pharmaceutical market is considered to be one of the biggest globalized sectors of the world economy, the impact of each level should be taken into account when forming a development strategy.

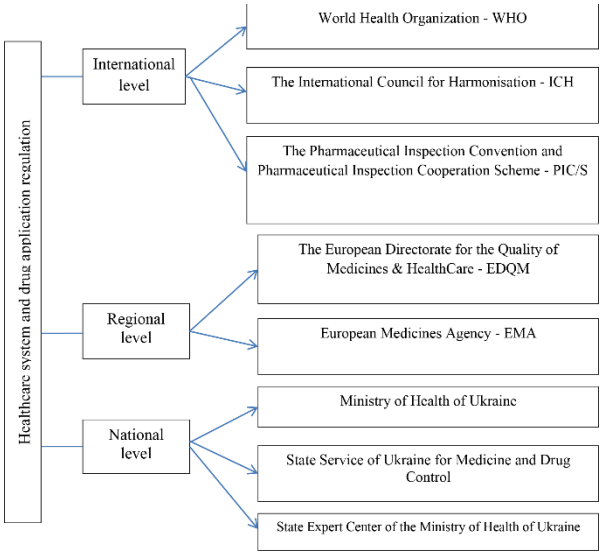

Figure 4: Pharmaceutical regulation system (compiled by the authors)

WHO, the European Commission and the European Medicines Agency (EMA) have signed an agreement on exchange of information on safety, quality and efficacy of medicines, registered medicinal devices or products within the EU /WHO.

In Ukraine, the regulatory activity is governed by Order of the ST-N MOHU 42-1.1:2013 "Medicines. Good regulatory practice", harmonized with WHO recommendations (Fig. 5).

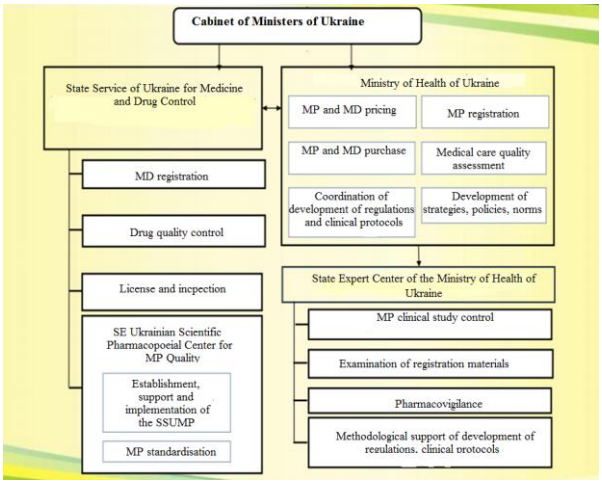

Figure 5: The system of pharmaceutical market regulation in Ukraine

Thus the government policy in the pharmaceutical market should inherently combine both main principles of the state innovation policy and general requirements applicable in the world drug regulation market. However, in the current legal regulation, the pharmaceutics development strategy is partially stipulated in the Law of Ukraine (1996) "On Medicines", which defines the basic principles of medicine quality control and their production, sales, but some important provisions on effective means (methods) of the state regulation need to be developed and implemented in order to provide an integrated strategy for the pharmaceutical activity in today's globalization.

Having examined the globalization nature, symptoms and impact on the pharmaceutical market, we came to the conclusion that the strategy of the pharmaceutical industry development should focus upon solving several key modern problems:
- The pharmaceutics development strategy should implement principles and values of the new health economy;
- The pharmaceutics development strategy should take into account the change in approaches to revealing and meeting the consumer's needs - orientation at customers and patient's personality, communication with patients and health care institutions to determine the patient's needs (patient first);
- The pharmaceutics development strategy should take into account the change in approaches to formation of the value chain;
- The pharmaceutics development strategy should take into account the change in approaches to cost formation (some countries refuse to finance treatment of certain groups of diseases, which makes the production of certain groups of drugs unnecessary).

Consequently, globalization changes approaches to business running, as well as accelerates and monopolizes scientific and technological progress, ongoing researches result in new treatment methods, and therefore a strategy in this industry should take into account these features, but yet provide leadership and competitiveness. Such diverse and dynamically changing conditions of the pharmaceutical industry require new approaches to their strategic development.

However, it is necessary to understand that the pharmaceutics development strategy is only one element of the

country's development strategy and should inherently consist with the general innovation strategy of the country's development.

For smooth entry of Ukraine into the world economic space, an innovation model of the economy should be formed, the efficiency of the production structure should be increased by increasing the share of high-tech industries, providing radical changes in international specialization in the current dynamic conditions of production internationalization. The innovative model of economic development, which became the dominant doctrine of economic growth in economically and technologically developed countries and countries with positive dynamics of technological and economic changes, is considered to be essential basing on large-scale introduction into economic circulation through innovative processes of such products of intellectual work as advanced technologies, scientific and technical developments and other objects of intellectual property rights of the scientific and technical sphere, as well as introduction of effective organizational and managerial decisions to commercialize them or to obtain a social and economic effect. Although innovation as a phenomenon of social and economic life is expressed in many different ways, it is also associated with various factors, regulatory nuances, economic and non-economic incentives. The state considers stimulation and activation of innovations, formation of the information society to be priority national interests and takes it as a benchmark in shaping the further social and economic development course, and this means that the issue of creating conditions, activating and implementing innovative transformations in the real sector of the economy and in the social sphere, building of an innovative model of economic development are believed to be a component of the chosen strategic course of the social and economic policy of Ukraine. At the same time, legislative inconsistency on the state innovation policy as a separate component in the Civil Code of Ukraine, in particular in Art. 10 and 1 Art. 328, nullifies the building of an innovative model of economic development, including in health care. The lack of scientific and legal support for innovation activity does not allow the integral state innovation policy to be formed, even at a conceptual level. Thus public procurement, direct investments, preferential loans, grants, financial guarantees, fiscal preferences, non-financial services and other non-financial support are believed to be the main tools for state stimulation of innovation in the EU member states and other developed countries. That is, the European countries use the systemic principle of the innovation policy implementation, based on definition of specific legal tools and mechanisms to achieve the tasks.

Thus, considering the dependence of the domestic pharmaceutical market on the above globalization manifestations that require a quick and adequate response, we offer formation of a strategy and strategic management grouped together in two contours (Figure 6). One should be a stable unchanging core that determines the global priority of the pharmaceutical industry, and the other contour represents more flexible principles, tools and directions for development in specific areas that allows functional development strategies to be formed.

The first outline is a solid core strategy, which contains the basic principles, upon which the whole system of the pharmaceutical industry is focused.

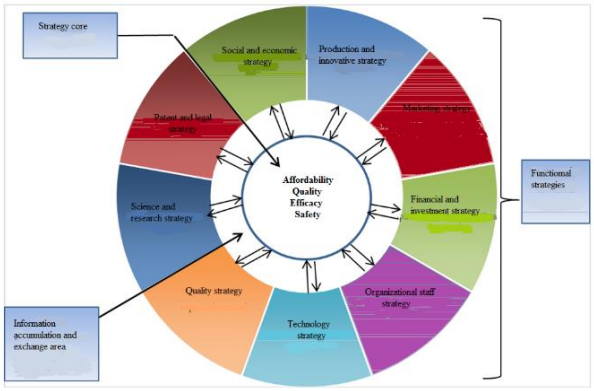

Figure 6: Model of strategic management of the pharmaceutical industry development (the author's development)

The basic principles, goals and objectives that underlie this core should remain unchanged under any circumstances and changes in the political and economic situation. That is, the core of the strategy reflects national interests on the national security, raising the quality of life. The first level strategy, as a tool for an integrated management model, forms the behavior principles, rules and logic.

The second outline should be an extensive system of strategic directions (functional development strategies in areas socially and politically important for the country development), which provide for continuous monitoring and appropriate correction of each direction of the strategy for changing the market environment. That is, the very second core of functional strategies should provide for a flexible mechanism for appropriate changes/adjustments of the strategy to respond to increasingly complex economic conditions. Because, as Khalimon notes in the work, the leadership is hard to be retained because it is hard to change the existing strategy. That is, quite often, because of the lack of a flexible mechanism that changes the strategic development direction radically and quickly and effectively changes only some functional components of the global strategy, the country becomes an outsider in world competition (10).

In our opinion, in creating a mechanism for strategic pharmaceutics management under globalization, such synergetic paradigm should be used that offers a scheme for forming a strategy for the pharmaceutics development, which considers the globalization influence (Fig. 7). The scheme of strategy formation allows implementation of the proposed model of strategic pharmaceutics development. The proposed scheme contains two proposed outlines of strategy development. The first outline (the core of the pharmaceutics strategy) has its practical implications in the National Drug Policy. The second outline is already connected with the pharmaceutics subjects - drug manufacturers, wholesalers and retailers - who have to formulate functional strategies and bring them in line with the global strategy for pharmaceutics development.

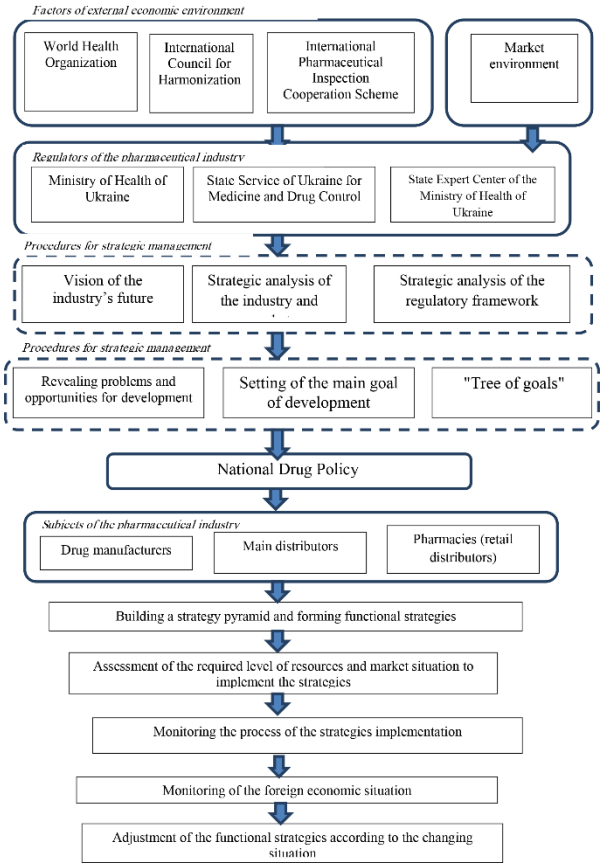

Figure 7: Scheme of formation of the strategy of the pharmaceutics development in Ukraine

4 Conclusions

In order to implement the above tasks in Ukraine, all the efforts have to be focused upon creating an extensive legislative and regulatory framework that would provide wide opportunities for legal and private entities to implement and support innovation activities regardless of basic government orders. That is, the system of organization of innovation activities at Ukrainian enterprises should not be limited to their own research and development works, but rather – should focus upon continuous external monitoring and search for innovations in the global information space, evaluation and acquisition of new technologies necessary for their intensive development of the pharmaceutical industry.

The paper contains substantiations on certain negative aspects for the national security of the country in globalization, predicting the market monopolization and increased competition, but also on certain positive aspects in the possibility of creating innovative clusters through technology transfer, quality improvement, and so on. However, positive benefits of globalization can be enjoyed only upon formation of the system of rapid response to challenges and opportunities of the modern market.

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