



## CURRENT TRENDS IN THE DEVELOPMENT OF THE PHARMACEUTICAL MARKET IN UKRAINE

Tetyana Ostashchenko<sup>1</sup>, Anna Lutska<sup>1</sup>, Volodymyr Tomchuk<sup>1</sup>, Alina Koval<sup>1\*</sup>, Andrii Solomennyi<sup>1</sup>, Serhii Snizhynskiy<sup>1</sup>, Lev Prystupiyuk<sup>1</sup>, Davtian Lena<sup>1</sup>, Anna Drozdova<sup>1</sup>

1. Department of Pharmaceutical Technology and Biopharmacy, Shupyk National Healthcare University, Kyiv, Ukraine.

### ARTICLE INFO

#### Received:

14 Apr 2023

#### Received in revised form:

08 Aug 2023

#### Accepted:

09 Aug 2023

#### Available online:

28 Aug 2023

**Keywords:** Pharmaceutical market, Statistic, Pharmacy, Soft medicines, Wounds, Sales volumes

### ABSTRACT

The pharmaceutical industry is one of those that are developing, such a market is characterized by a large supply and demand, the number of brands, not to mention the sales market, which includes all citizens of the country without exception. Issues related to the formation and development of the pharmaceutical market in Ukraine concern not only representatives of pharmaceutical companies, pharmacists, and pharmacists but also doctors. A great deal in medicine and society, in general, depends on the harmony, stability, and civility of the pharmaceutical market. Today, the state of the pharmaceutical market and the structure of relations between its main participants in our country leave much to be desired. This adversely affects both the economy and health care. Medicines occupy the largest share in sales volumes of "pharmacy basket" products. The key characteristics of the Ukrainian pharmaceutical market today are a low level of per capita consumption of medicines and it is important to mark.

This is an *open-access* article distributed under the terms of the *Creative Commons Attribution-Non Commercial-Share Alike 4.0 License*, which allows others to remix, tweak, and build upon the work non commercially, as long as the author is credited and the new creations are licensed under the identical terms.

**To Cite This Article:** Ostashchenko T, Lutska A, Tomchuk V, Koval A, Solomennyi A, Snizhynskiy S, et al. Current Trends in the Development of the Pharmaceutical Market in Ukraine. *Pharmacophore*. 2023;14(4):64-7. <https://doi.org/10.51847/ckKmTd2Lm8>

### Introduction

A high level of competition with a small market volume, an inevitable decrease in market growth rates, an unfavorable ratio of value and volume of transactions) a low share of innovative drugs, low business margins, as well as a lack of state funding in this market. This means, on the one hand, clearly insufficient and inadequate development of the market, on the other hand, the presence of great potential for its possible growth and improvement [Bozhkova V. V. Study of advantages and problems of strategic planning of promotion policy. Modern trends of economic theory and practice: world experience and domestic realities: International. science and practice conference, November 18–19, 2010: coll. science and method work Kherson: KhSU Publishing House, 2011. 408 p., p. 215].

**Table 1.** Approaches to the Formation of a market promotion strategy

Approach	Content of the approach	Toolkit	Author	Author's concept
<b>Formal</b>	Systematization of the process of developing a strategy for the development of a pharmaceutical enterprise based on formalized methods of analyzing the business environment of a pharmaceutical enterprise.	SWOT analysis; scheme of the strategic planning process; models of the current state of the external environment.	I. Ansoff	An analytical approach to the formation of a strategy for the development of a pharmaceutical enterprise, which varies depending on the degree of environmental turbulence.
<b>Elemental</b>	An educational form of the strategy development process, supported by many strategic initiatives from various divisions of the pharmaceutical enterprise.	Training and simulation models, Mintzberg cube of changes.	D. Quinn, G. Mintzberg, Yu.B. Ruby	Strategy formation (adjustment) is a spontaneous reaction to changes in market conditions. The creation of the strategy is aimed at solving two strategic tasks: market monopolization and increasing the

**Corresponding Author:** Alina Koval; Department of Pharmaceutical Technology and Biopharmacy, Shupyk National Healthcare University, Kyiv, Ukraine. E-mail: [alinasposts@gmail.com](mailto:alinasposts@gmail.com).

				competitiveness of the pharmaceutical enterprise
<b>Marketing</b>	Formation of a strategy for increasing competitiveness focused on the target group of consumers. Macromarketing.	A model for selecting strategic attacks; matrix method of choosing strategies	F. Kotler	The basis of creating a strategy is comprehensive marketing research. The strategy is determined by the role that the company plays in the competition.
<b>Positional</b>	Strategy formation is seen as a controlled and deliberate process, the result of which is elaborately developed "key strategies" relevant to a particular industry. The implementation of the strategy allows the company to occupy a favorable market position and protects against the attacks of competitors. Benchmarking: comparative and process.	Scheme of systematization of goals and intentions of competitors; value chain; Porter's five competitive forces model; competitive analysis model; market penetration models.	M. Porter A.A. Thompson, A. J. Strickland M. H. Meskon Jean - Jacques Lamben A.G. Piston	The process of creating a strategy is based on a comprehensive understanding of the structure of the industry and the process of its change. The final strategy reflects the competitive position of the pharmaceutical enterprise in the market. Four approaches to the process of forming a company's development strategy are associated with a change in the state of one or more of the following elements: product, market, the position of a pharmaceutical company within the industry, and technology. Strategy formation is the only way of formally forecasting future problems and opportunities. The creation of a strategy is based on the analysis of portfolios of activities taking into account the typology of markets. The basis of strategy formation is strategic segmentation to allocate strategic business zones.

**Table 2.** Retail sales of "pharmacy basket" products for 2019-2021.

Year	Medicines		Medical products		Cosmetic products		Dietary supplements		In general
	amount	Fraction, %	amount	fraction, %	amount	fraction, %	amount	fraction, %	amount
Monetary expression, million hryvnias									
2019	60919,8	82,9	5582,5	7,6	2638,8	3,6	4335,0	5,9	73 476,1
2020	64 465,1	81,5	6769,1	8,5	2825,2	3,6	5053,3	6,4	79 112,6
2021	78 447,3	81,1	7142,1	7,4	3330,3	3,4	7800,9	8,1	96 720,6
Natural expression, million packages									
2019	805,5	64,6	348,1	27,9	35,5	2,9	57,3	4,6	1246,3
2020	768,7	61,2	393,9	31,4	35,7	2,8	57,4	4,6	1255,7
2021	776,2	60,6	388,8	30,3	38,1	3,0	78,5	6,1	1281,6

The domestic pharmaceutical market is potentially attractive, but on the condition that the main directions of its development will be determined shortly, which will enable companies and investors to judge their prospects in this market and forecast their activities. According to the results of 2021, the share of dietary supplements is 8.4%, having almost doubled over the past 5 years [1-5].

Currently, the main market clusters have already formed: domestic manufacturing companies (Darnytsia, Arterium, Farmak, etc.), well-represented Eastern European companies (KRKA, Gedeon Richter, Berlin-Chemie), new generic companies (Actavis, Zentiva, TEVA, Ratiopharm, SANDOZ), innovative companies (Novartis, Pfizer, Astra Zeneca) and a number of so-called niche companies (Mili Healthcare, Bittner, Heel, etc) (**Table 1**).

Over the past three years, most clusters have experienced more or less significant growth (most pronounced in new generic companies), and it is predicted that this trend will continue in the coming years. Exceptions are niche companies, for which a small regression is noted, and innovative ones, in which there have been no significant changes in the cluster since 2004. The

main factors for domestic companies are relatively low prices, "positive" expectations of target groups, which are sometimes justified by hopes for state preferences. But, in turn, the pace of development of domestic companies can worsen the following important factors: existing myths and attitudes about the quality of domestic products (often distrust of them on the part of the consumer), insufficient experience in the promotion system (due to which domestic companies lose to the giants of the world market), lack of an appropriate evidence base - large-scale multicenter studies with highly reliable positive results (this reduces the objective value of the products of domestic companies from the point of view of modern medicine).

Innovative companies have great potential because they contribute to the development of new treatment approaches and can provide a broad evidence base to support the quality, efficacy, and safety of their products. In this regard, innovative products keep up with the times and receive high attention as the most progressive part of pharmacotherapy (**Table 2**). Unfavorable trends in the development of a cluster of innovative companies can be caused by high prices (usually associated with significant capital investments in the development, research, and promotion of innovative products) and certain pressure from generic companies [6-10].

New generic companies are positively distinguished by flexible pricing, operational formation depending on the situation on the market of the "correct" portfolio of products, that is, the most demanded in specific conditions. Sometimes generic companies that bring their products to the country's market before branded ones play the role of innovative companies, introducing the country's medical community to a fundamentally new approach to treatment for the first time, which also promotes the promotion of a number of generics on the market. However, there are also obstacles for this cluster: focusing on local markets, and the need for branding and promotion. Thus, any cluster has its contributing and hindering factors, and the development of each of them depends on the skillful use of the first and the most effective struggle with the others. The key factors of a pharmaceutical company's success in the market include, first of all, external financing and the efficiency of operations of market entities [11].

The largest number of pharmaceutical products is imported from Germany, India, France, Italy, and Slovenia. It is interesting that from 2010–2015, the import of medicines and other products to Ukraine decreased from 2.1 billion dollars. USA up to 1.1 billion dollars. USA, i.e., almost doubled, and in recent years the volume of imported goods has been increasing rapidly.

Regarding the price categories of medicinal products, there is currently a tendency to redistribute consumption towards drugs with a higher cost, that is, the share of high-priced drugs has been increasing in the pharmaceutical market for several years.

If we analyze why the pharmaceutical market shows such growth rates, it can be noted that from 2021, the main factor in this process is the redistribution of consumption towards more expensive drugs, as evidenced by the given data [12-16].

Market financing is one of the most important issues determining its stability and development. The source of financing can be primarily the end user's wallet, but it is extremely important to take into account the limit of elasticity of purchasing power and the actual economic situation in the country. Another important source of financing is investment, primarily infrastructure. The main tools here are reimbursement (state funding), the co-payment mechanism (the patient's participation in paying for treatment), and voluntary medical insurance. Do not forget about the competent operation of pharmacoeconomic approaches. With regard to medicinal products, over the past year, not only sales volumes have changed, but also the structure of the market itself, which is caused primarily by the impact of the COVID-19 pandemic. Taking into account the given data, it can be stated that the sales of drugs used in the treatment of the coronavirus disease are growing at a faster rate than others, in particular, there is a significant increase in the consumption of antithrombotic drugs. According to the results of 2020, companies such as: "Farmak", "Darnytsia" and Teva became the leaders in terms of sales of medicines and dietary supplements, and according to the results of 2021 - "Farmak", "Darnytsia" and Sanofi (France). The State Service of Ukraine for Medicinal Products intends to cancel the re-registration of medicinal products. The relevant draft law has already been developed by the State Medical Service and sent to the Ministry of Health of Ukraine for consideration. The document envisages canceling the mandatory re-registration of drug manufacturers who sell their products in the territory of Ukraine. The State Medical Service is confident that the adoption of the law will ensure patients' uninterrupted access to medicines. In particular, this will prevent the interruption of treatment regimens and avoid the risks associated with changing the medicinal product. Since in the process of re-registration, the manufacturer of the drug could lose its license, and patients had to be prescribed other drugs that could endanger the patient, experts report. The developers also note that this law, if adopted, will be Ukraine's next step in harmonizing national legislation with European norms in the field of drug registration procedures regarding the validity period of a drug registration certificate. This will also have a positive effect on the pharmaceutical business of Ukraine. In particular, the abolition of mandatory re-registration will reduce the regulatory burden on drug manufacturers. According to the developers, the creation of the document was made possible thanks to the government's systematic actions to change the national legislation of Ukraine in the field of health care, and in particular, active actions aimed at bringing it into line with international norms.

## Conclusion

Therefore, the market of pharmaceutical products is one of the strategic sectors for the economy and social development of any country in the world. High scientific intensity, application of advanced technologies in this field have a significant multiplier effect on chemical production, agriculture, mechanical engineering, and scientific activity. In addition, the high level of development of the country's pharmaceutical industry affects the supply of medicines to the population and the quality of medical care. But achieving a high level of development in the pharmaceutical products market is possible only if there is

a demand for manufactured drugs, which directly depends on the development trends of the world market. The effectiveness of the operations of pharmaceutical companies as market entities are determined by the following components: 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 consumer of its products) and the features of contact with the end consumer. The effectiveness of marketing tools depends on the scale of investments (taking into account their return, i.e. business profitability), segmentation, positioning, targeting, and availability of unique sales offers. The effectiveness of the activities of medical representatives is determined by the quality of work, correct segmentation within target groups, and attention to regional development. Finally, the improvement of contacts with target audiences is of great importance: access to the end user of the products - the patient - can be carried out both directly and with the help of general practitioners (therapists and family doctors) and/or narrower specialists (cardiologists, gastroenterologists, etc.)

**Acknowledgments:** We would like to thank the administration, Shupyk National Healthcare University of Ukraine (Kyiv, Ukraine) for comprehensive support and research assistance.

**Conflict of interest:** None

**Financial support:** None

**Ethics statement:** None

## References

1. Mann MV, Popkin DL. Handbook of Dermatology: A Practical Guide. Wylie-Blackwell; 2019. p. 259-63.
2. Lewis FM, Tatnall FM, Velangi SS, Bunker CB, Kumar A, Brackenbury F, et al. British association of dermatologists guidelines for the management of lichen sclerosus, 2018. *Br J Dermatol.* 2018;178(4):839-53. doi:10.1111/bjd.16241
3. Forton FM, De Maertelaer V. Papulopustular rosacea and rosacea-like demodicosis: two phenotypes of the same disease? *J Eur Acad Dermatol Venereol.* 2018;32(6):1011-6. doi:10.1111/jdv.14885
4. Diczig B, Németh I, Sárdy M, Pónyai G. Contact hypersensitivity in rosacea-a report on 143 cases. *J Eur Acad Dermatol Venereol.* 2018;32(9):e347-9. doi:10.1111/jdv.14922
5. Lacey N, Russell-Hallinan A, Zouboulis CC, Powell F. Demodex mites modulate sebocyte immune reaction: Possible role in the pathogenesis of rosacea. *Br J Dermatol.* 2018;179(2):420-30. doi:10.1111/bjd.16540
6. Davtyan LL, Korytnyuk RS, Voitenko HM. The main fashionable development of the pharmaceutical market of Ukraine in terms of pharmacotherapeutic drugs. Kyiv; 2015. p.130.
7. Vlasenko IO, Davtyan LL. Comparative analysis of the market of dermatological preparations in Ukraine for 2013 and 2018. *Farm Med-Biol Asp Lekarstv J.* 2018;(29):194-205.
8. McCleskey S. When Free Markets Fail: Saving the Market When It Can't Save Itself. John Wiley & Sons. 2015;9(56):e245-t63.
9. Cosmetic creams. Hot technical minds: DSTU 4765:2007. – [Chynny view 2009–01–01]. – K.: Gospotrestandart of Ukraine; 2020. 7 p. – (National standard of Ukraine).
10. Davtyan LL. Derivation of osmoticity x power of models x bases of fallow relation. *Pharm Mag.* 2019;3(S):74-7.
11. Polevoy GG, Sablin AB. Development of coordination abilities with the help of the burpee exercise. *Int J Pharm Res Allied Sci.* 2022;11(1):108-12. doi:10.51847/eYLjcMBn9G
12. Blahun S, Stuchynska N, Lytvynenko N, Khmil I, Serhienko T, Hladyshev V. The communicative competence of future healthcare specialists in the context of pharmaceutical market transformation. *Arch Pharm Pract.* 2022;13(1):74-81.
13. Polevoy GG. The development of endurance through prolonged running and its effect on the attention of 9-10-year-olds. *Entomol Appl Sci Lett.* 2023;10(1):65-75.
14. Eremeeva EA, Khalilova TV, Volkova NV, Torkunova JV, Kurgaeva ZY. Industrial policy and its impact on the development of the territory: the experience of Russian regions. *J Adv Pharm Educ Res.* 2021;11(4):68-73.
15. Panasenko SV, Cheglov VP, Ramazanov IA, Krasil'nikova EA, Stukalova IB, Shelygov AV. Improving the innovative development mechanism of the trade sector. *J Adv Pharm Educ Res.* 2021;11(1):141-6.
16. Oran IB, Azer OA. International development perception changing with globalization and international cooperation activities of Turkey. *J Organ Behav Res.* 2021;6(1):189-202. doi:10.51847/MDT3oUvccH