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**QUALIFICATION WORK  
on the topic «STUDY OF THE FEATURES OF THE MODERN ARAB  
PHARMACEUTICAL MARKET»**

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## ANNOTATION

The qualification work presents an analysis of the Arab pharmaceutical market and its development drivers in the current period. It includes an overview of market dynamics, trends, growth drivers and constraints, segmentation, competitive landscape, healthcare policies, and prospects.

The qualification work consists of the introduction, three chapters, conclusions and the list of references.

*Key words:* Arab countries, pharmaceutical market, industrial pharmacy, healthcare, medicine.

## АНОТАЦІЯ

Кваліфікаційна робота представляє аналіз арабського фармацевтичного ринку та драйверів його розвитку в поточний період. Вона містить огляд ринкової динаміки, тенденцій, сил і обмежень зростання, сегментації, конкурентного середовища, політики охорони здоров'я та майбутніх перспектив.

Кваліфікаційна робота складається зі вступу, трьох розділів, висновків та списку використаної літератури.

*Ключові слова:* Арабські країни, фармацевтичний ринок, промислова фармація, охорона здоров'я, лікарський засіб.

## CONTENT

ABBREVIATIONS	
INTRODUCTION.....	5
CHAPTER 1. MAIN DIRECTIONS IN THE STUDY OF THE ECONOMY OF ARAB COUNTRIES.....	7
1.1. General characteristic of the economic situation in the Arab states. ....	7
1.2. Current analysis of healthcare systems in MENA countries.....	10
Conclusions to the 1 Chapter.....	15
CHAPTER 2. OVERVIEW OF THE PHARMACEUTICAL MARKET IN ARAB COUNTRIES .....	16
2.1 The nature and characteristics of the pharmaceutical market.....	16
2.2 Market analysis methods in the pharmaceutical business .....	23
Conclusions to the 2 Chapter.....	27
CHAPTER 3. ANALYSIS OF THE CURRENT STATE AND DEVELOPMENT TRENDS OF THE ARAB PHARMACEUTICAL MARKET...29	
3.1. Analysis of the structure of the pharmaceutical market in terms of market status .....	29
3.2. Research on the development of the pharmaceutical industry in MENA countries.....	36
Conclusions to the 3 Chapter.....	41
GENERAL CONCLUSION.....	43
REFERENCES.....	45

## **ABBREVIATIONS**

CAGR – Compound annual growth rate

EMA – European Medicines Agency

EU – European Union

FDA – Food and Drug Administration

GCC – Gulf Cooperation Council

KSA – Kingdom of Saudi Arabia

MENA – Middle East and North Africa

MP – Medical Products

NHS – National Health System

PPG – Previous period growth

PPP – Purchasing power parity

TNCs – Transnational corporations

OECD – Organization for Economic

UAE – United Arab Emirates

UN – United Nations

USD – United States Dollar

WHO – World Health Organization

## INTRODUCTION

**Relevance of a subject.** The pharmaceutical industry remains one of the most important sectors of the global economy and makes a significant contribution to it.

This is a sustainable sector that is one of the fundamental ones in developed economies, but in recent years its importance has also been growing in developing countries.

The relevance of researching the pharmaceutical market is explained by its high social significance: the production and circulation of medicines directly affects national security and economic well-being of the state. These studies are becoming particularly relevant in the process of reforming and bringing modern healthcare systems around the world to a fundamentally new level.

The Middle East and North Africa (MENA) region is a largely untapped but potentially extremely fertile part of the world for the pharmaceutical industry both as a sales region and for the establishment of manufacturing capacity.

The MENA pharmaceutical market, with an annual growth rate of over 10%, is attractive to most multinational and international pharmaceutical manufacturers.

Emerging pharmaceutical markets in the MENA region offer unparalleled growth opportunities for the pharmaceutical industry. With improved access to healthcare and increasing demand for specialized treatments, the Middle East pharmaceutical industry is opening up the necessary opportunities.

Regulatory reforms and local manufacturing initiatives are transforming the region into a lucrative global pharmaceutical hub. Companies with strategic investment plans in pharmaceutical opportunities in the MENA region and the Middle East will benefit from the enormous potential for growth and innovation that this market represents.

Some multinational corporations have already started investing directly in the region. To succeed in the region, MENA market entry should be a key focus for international firms to enter this market. This is due to several factors, such as the

large difference in purchasing power among the countries included in it, the lack of centralized planning.

**The purpose** of the qualification work is to research the characteristics and current state of the Arab pharmaceutical market. To achieve this goal, the following **tasks** must be completed:

- to conduct an analysis of the dynamics of the development of the world and Arab pharmaceutical market, as the most important component of health care;
- to determine the problems and directions of development of the MENA pharmaceutical market;
- to analysis of the current state and development trends of the MENA pharmaceutical market.

**Objects of research.** Pharmaceutical industry of Arab countries; behavior and actions of pharmaceutical companies in the conditions of post-industrial transformations.

**Subject of research.** Analysis of the current state of the pharmaceutical industry, creation of new strategies and areas of development, their impact on pharmacoeconomics.

**Methods of researches.** In the study, we used content analysis, as well as historical, bibliographical, graphic, comparative, mathematical and statistical methods.

**Practical value of the work.** Regular research on the pharmaceutical sector in developing countries can provide information on the relationship between government agencies and business entities, as well as identify trends and new challenges in the development of promising pharmaceutical markets.

**The scientific novelty.** This is the first systematic review of databases to determine pharmaceutical sector Arab countries.

**Structure and volume.** The work is presented on 44 pages and consists of 3 chapters, general conclusions and a list of references, which consists of 34 sources. The results of the study are illustrated by 5 tables and 13 figures.

## **CHAPTER 1. MAIN DIRECTIONS IN THE STUDY OF THE ECONOMY OF ARAB COUNTRIES**

### **1.1. General characteristic of the economic situation in the Arab states**

Each country of the world has its own unique features, differing from others in cultural, economic, political and other characteristics, but at the same time, the presence of common features between certain countries makes it possible to group them, attribute them to certain types of countries. There are two classifications in the world. The classification of countries according to the typological approach takes into account two components:

- level of economic development and
- structure of the country's economy.

The United Nations has proposed a classification according to this approach: industrialized countries, countries with economies in transition, developing countries.

Another approach, the regional one, involves grouping countries by geography. The most general division (division into parts of the world or continents) can be carried out as follows: Europe, Asia, North America, South America, Africa, Australia and Oceania.

In the qualification work, we will consider the Arab countries that are located on the African continent. The Arab countries of Africa are extremely diverse both in terms of population, territory, availability of various types of natural resources, and many other characteristics. At the same time, in terms of economic development, virtually all countries of the African continent belong to developing countries.

Having studied the literature, it is possible to identify common features for these countries. This is that the population has a common history, speaks one language (Arabic) and is predominantly Muslim. However, they are very different. Of the differences, socio-economic and demographic indicators can be identified. The Arab League, the United Nations Development Programme and other

organizations have used the term "Arab countries" to describe the Arab world [31-33]. Today, the population of the Arab world is 459 million people. The inhabitants live in a large geographical area stretching from southwest Asia to northern Africa [6].

The Arab world has 22 countries in the Middle East, of which 19 are members of the WHO Eastern Mediterranean Region. The Middle East and North Africa is made up of 18 countries from Morocco to Iran. The countries of North Africa occupy about a third of the continent. The region includes nine countries: Algeria, Sahrawi Arab Democratic Republic, Egypt, Libya, Mauritania, Morocco, South Sudan, Sudan, Tunisia.

In terms of economic development, the top five countries with access to the Mediterranean Sea (Algeria, Egypt, Libya, Morocco, Tunisia) are significantly ahead of most other African countries. This situation is due to the proximity to Europe, the availability of rich natural resources, and a higher educational level of the population compared to other African countries.

The main wealth of the country is oil. On the world market, these countries are represented mainly by raw materials and agricultural products. The industrial sector, with the exception of some processing enterprises, is mainly controlled by transnational corporations (TNCs) from developed countries. There are virtually no powerful companies based on the African continent.

The countries of the world mainly use one or more factors in the development of their own economies. An important indicator is considered to be the gross domestic product (GDP), reflecting the strength of the economy of a particular country.

Gross domestic product is the market value of all final goods and services produced during the year in all sectors of the economy on the territory of the state for consumption, export and accumulation, regardless of the nationality of the producer. When determining GDP at the level of an individual country or at the level of the world economy as a whole (gross world product), two methods are most often used:



- at the exchange rate;
- by purchasing power parity.

According to the latest figures and estimates, the GDP of the Arab states is approximately \$3.5 trillion at face value and \$9.4 trillion at purchasing power parity (PPP). Saudi Arabia and the United Arab Emirates (UAE) are among the most economically developed countries in the region of North Africa and the Middle East. Their share of GDP in the total population is 0.981%.

The twelve largest economies (countries) of the Arab world, as well as the corresponding indicators (GDP at the current exchange rate) are given in table. 1.1.

Table 1.1

Comparative characteristics of the most economically powerful Arab countries (2023)

<b>Country</b>	<b>Territory, th. km<sup>2</sup></b>	<b>Population, ml.</b>	<b>GDP (PPP), bln dollars</b>	<b>GDP (PPP) per person, th. USD/person</b>
Saudi Arabia	2 150, 0	33,26	2250,0	18,69
Egypt	1001,5	106,4	1290,0	12,79
UAE	83,600	10,48	895,17	5,60
Algeria	2381,7	43,6	491,46	11,11
Qatar	11,581	2,656	180,21	8,19
Morocco	446,6	36,6	273,95	7,62
Sudan	1861,5	46,8	181,71	5,43
Bahrain	786,500	1,577	98,17	4,95
Tunisia	163,610	12,2	21,36	2,28
Oman	309,500	5,049	88,19	1,83
Kuwait	17,817	4,853	10,60	2,39
Libya	1760,00	7,306	4,28	0,91

The member countries with the highest GDP (PPP) are Saudi Arabia (\$2250.0 trillion), followed by Egypt (\$1290.0 trillion) and the UAE (\$895.17 billion). The member country with the lowest nominal GDP is Libya with \$4.28 billion [1].

The member country with the highest nominal GDP (PPP) per capita is Saudi Arabia (18.69), the UAE (5.60 ) Algeria and Qatar (11.11 and 8.19 respectively). The member country with the lowest nominal GDP per capita is Libya at \$0.91 [3].

The population of Arab countries is growing at the fastest pace compared to other parts of the world and at the beginning of 2023 exceeded five hundred million people. One of the countries has a population of more than 100 million people: Egypt – 106.4 million people (ranks 14th in the world).

## **1.2. Current analysis of healthcare systems in MENA countries**

Many countries in the world invest a large percentage of GDP in the health of their citizens. Such investments further impact the country's economic growth and improve the overall health of patients. The WHO shows statistics showing that for every 5% increase in life expectancy at birth, there was a 0.15% increase in economic growth per year. In contrast, sick people can have a negative impact on the economy, which can lead to a decrease of about 40% in growth rates between developed and developing countries.

Financing the health system is a critical component, but progress in ensuring the health of the nation also requires coordinated action by all components of the health system, with a particular focus on strengthening the health workforce.

Health systems in a number of countries in the Arab world have improved significantly in recent decades, with improved access to all sectors of health care, including public and private hospitals, outpatient clinics, pharmacies, and dental clinics.

In terms of services and coverage, universal health coverage varies considerably, ranging from approximately 35% to 90% in the MENA regions.

Unfortunately, these countries face challenges in providing equitable and high-quality health services.

Populous countries such as Egypt and Morocco have incomplete health insurance, and a significant portion of pharmaceutical costs is paid personally by the patient. Coverage is often very fragmented with significant inequalities among different segments of the population. For example, in the UAE and Saudi Arabia, where coverage of most key services is high-quality and free for the population, decision-makers understand that formalizing the benefit package and providing equal rights to services to different segments of the population requires significant attention, investment and political intervention.

It can be noted that significant changes have occurred in the organization of health care in recent times. Countries in the Middle East and North Africa region are investing in the development of their health care systems through reforms aimed at improving the provision of health services for their countries.

The growing demand for healthcare in the MENA region is forcing healthcare systems to face a huge challenge. This is due to the rate of population growth, the constant increase in the elderly population and the increase in the prevalence of chronic noncommunicable diseases.

It is possible to determine the main factors that affect the health of the population:

- income;
- social and physiological factors;
- epidemiological factors;
- and the availability of medical services.

Health expenditure as a factor that can affect the health of an individual is important for the formation of effective policies at the national and regional levels, as well as for the stability of health services.

The healthcare industry in the Arab States is currently undergoing a significant digital transformation, actively investing in smart technologies, which allows us to

expand the list of medical services provided. The organizational system is at the stage of transition from curative care to a model of prevention.

An organization is considering competitive advantage when developing strategic plans to set up data integration, which in turn will facilitate the creation of integrated health networks.

Having analyzed the relevant literature, we have identified the main directions for the development of health care (fig.1.1).

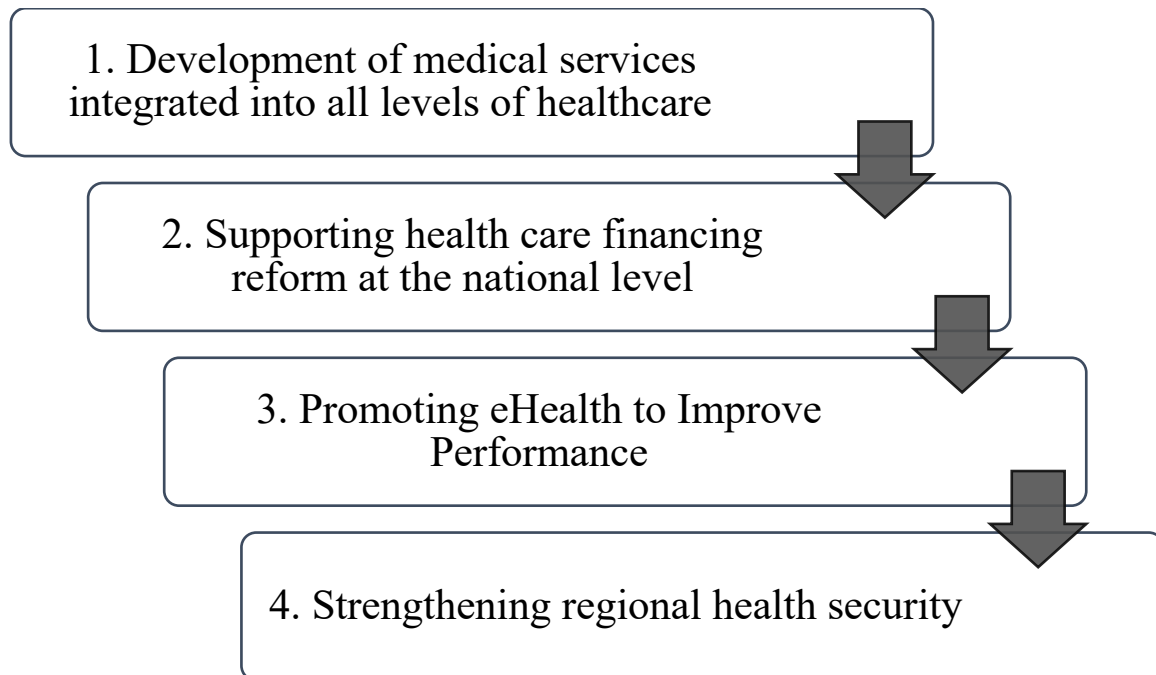


Fig.1.1 Priority areas of the healthcare sector

The central topics for all priorities are building institutional and human resources, improving public administration, and gender equality. These topics are in line with the overall priorities of countries in the sector, with a greater focus on the establishment of primary health care to ensure continuity and quality of care.

Significant infrastructure investment programs in countries and increasing purchasing power are expected to further boost medical spending, the emergence of more private hospitals, and the growth of medical tourism.

Healthcare expenditure per capita is the amount of money that each country spends to provide health care to one citizen. The indicator is calculated by the WHO, based on the total amount of all medical expenditures divided by the total population

of the country. The final figure, expressed in US dollars at the current exchange rate, allows you to compare the amount of money that different countries of the world spend on providing health care to their citizens. The level of national health expenditure is a relative value that includes both public and private health expenditure during a calendar year. The amount is calculated taking into account state budgets at all levels, health insurance funds, donations from international agencies and non-governmental organizations. The level of expenditure on health care is expressed as a percentage of the country's gross domestic product.

To calculate the indicator, data from national statistics and international organizations are used. The main source of information is the World Bank's World Development Indicators database, which is updated annually. Current health expenditure (% of GDP) data from the World Health Organization is the basis for this study. Expenditures on health care can be ranked among the key indicators of the country's social development, as they reflect the degree of attention paid by the state and society to the health of citizens. At the same time, this indicator does not take into account how evenly or unevenly health care expenditures are distributed among various social groups within a particular state, as well as related factors.

The United Arab Emirates is famous for its high-quality healthcare system, which has been recognized as the best in the Middle East. In 2023, the country ranked 17th out of 110 in CEO World's ranking of the best healthcare systems.

The government has approved a law according to which all emirates must offer universal medical care to their citizens. The Ministry of Health and Prevention controls the national health regulations. The agency also provides accreditation for public and private hospitals.

MENA countries at all income levels spend a comparatively smaller percentage of their income on health care, represented as a percentage of GDP [13]. There is also a wide range of health expenditures as a percentage of GDP in the countries of the region [12].

Using data from the World Bank report, we compared healthcare spending in these countries for 2021 (tabl.1.2).

Table 1.2

## Health expenditure statistics for countries in the region

Countries	Current health expenditure per capita (US\$)	Current health expenditure (%) GDP	Government expenditure on health care as (%) of total	Out-of-pocket expenditure as (%) of total
UAE	2351.81	5.31	62.50	14.01
Qatar	1934.00	2.89	74.80	12.50
Kuwait	1860.00	5.78	88.00	12.79
Saudi Arabia	1442.00	5.97	71.20	16.94
Bahrain	1146.47	4.27	60.10	29.90
Oman	852.62	4.37	77.40	7.96
Iran	570.09	6.82	50.43	39.57
Lebanon	307.10	10.05	49.00	33.54
Tunisia	263.10	6.97	56.91	38.04
Morocco	221.20	5.75	40.90	47.81
Algeria	208.20	5.53	65.00	33.44
Egypt	179.80	4.61	28.80	62.05
Djibouti	87.75	5.01	61.76	32.75

In the UAE, total healthcare spending as a percentage of GDP has increased by more than 41% over the past 15 years.

The healthcare system in Qatar has undergone significant improvements over the years, thanks to the government's significant investment in healthcare infrastructure, which has led to increased access to healthcare services across the country.

Saudi Arabia has a mixed public and private healthcare system, with 60% of services provided by the Ministry of Health.

The countries described above are characterized by varying degrees of state representation in health management. The role of the state in the health care system

in Kuwait is higher than in other Arab countries. In Egypt and Morocco, private investment plays a significant role and dominates outpatient care. The MENA region is one of the most dynamic regions in the world, full of both opportunities and challenges [16].

### **Conclusions to the 1 Chapter**

As a result of the analysis of data from the specialized literature, it can be argued that national per capita expenditure on health care in the MENA region as a percentage of GDP is generally lower than the world average. Health systems vary from country to country, with varying degrees of private sector involvement. In some countries, out-of-pocket health expenditures are high, putting the population at significant risk of falling into poverty.

The average expenditure for 2021 was 786.27 U.S. dollars. The highest value was: 2351.81 U.S. dollars (United Arab Emirates (UAE)), the lowest: 87.75 U.S. dollars (Djibouti). The UAE and Qatar are leading the sharp rise in healthcare spending in the Gulf. The figures show an annualized growth rate of 4.9% compared to 2020.

In our work, we provided examples of improvements in the performance of health systems in MENA countries. The paper highlights many problems faced by the health care systems of the region and the main directions for their solution.

To overcome these challenges, the health systems of the MENA region must develop their adaptability and responsiveness to meet the growing health care needs of the population, while overcoming financial shortfalls and growing challenges.

## **CHAPTER 2. OVERVIEW OF THE PHARMACEUTICAL MARKET IN ARAB COUNTRIES**

### **2.1 The nature and characteristics of the pharmaceutical market**

The growth and development of social production and circulation influenced the importance of the essence of the market. After reviewing different sources, it is possible to identify the definition of the modern market. This concept includes a system of commodity-money relations between all participants in the social reproduction process, such as producers, sellers and consumers, with its inherent organizational structure and mechanism of functioning, aimed at satisfying the production, economic and personal needs of people.

A developed infrastructure, represented by a set of institutions, ensures the continuous and effective functioning of the market. With the help of legal and economic control, the market system carries out commodity exchange operations, increases their efficiency and efficiency, and provides information support. The modern market economy is a system of interrelated markets. The internal structure of this system is quite complex.

The market has characteristic features that distinguish it from other systems. Among the characteristic features that distinguish the market from other systems are:

- freedom of choice: consumers can buy what they want, and manufacturers can sell goods depending on the needs of the audience.
- competition: when companies compete for customers, influence, and resources, they not only make a profit, but also introduce new products and services.
- transparency: transparency and accessibility of information allows market participants to make informed and informed decisions.

The advantages of the market are indisputable. The market gives freedom of choice and action to all its participants, allows rational distribution of resources, promotion of scientific and technological progress and, ultimately, the creation of



better goods and services. However, the market also has a number of disadvantages that are closely related to its advantages.

Markets carry high risks, whether they are financial crises, currency movements, production costs or price fluctuations. This causes uncertainty and does not allow us to make long-term forecasts.

The main tasks of the market are reflected in the functions it performs, among which the main ones are pricing, coordination of the economic component, stimulation, self-regulation (fig.2.1).

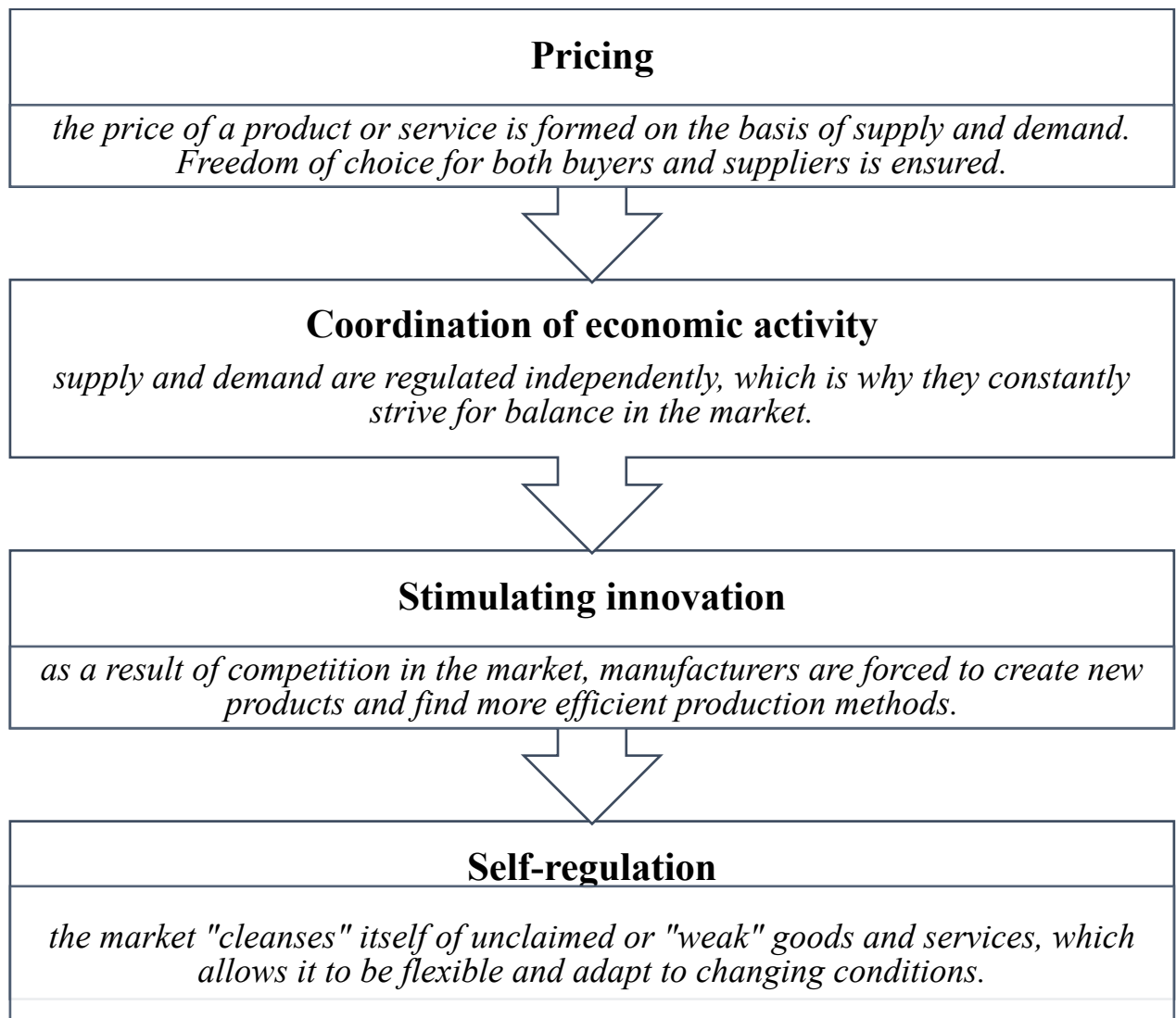


Fig.2.1. Main functions of the market

The type and kind of market depends on the specific infrastructure configuration. Various criteria are used to characterize the structure of a market economy.

We have defined several criteria by which the market can be classified, (fig.2.2).

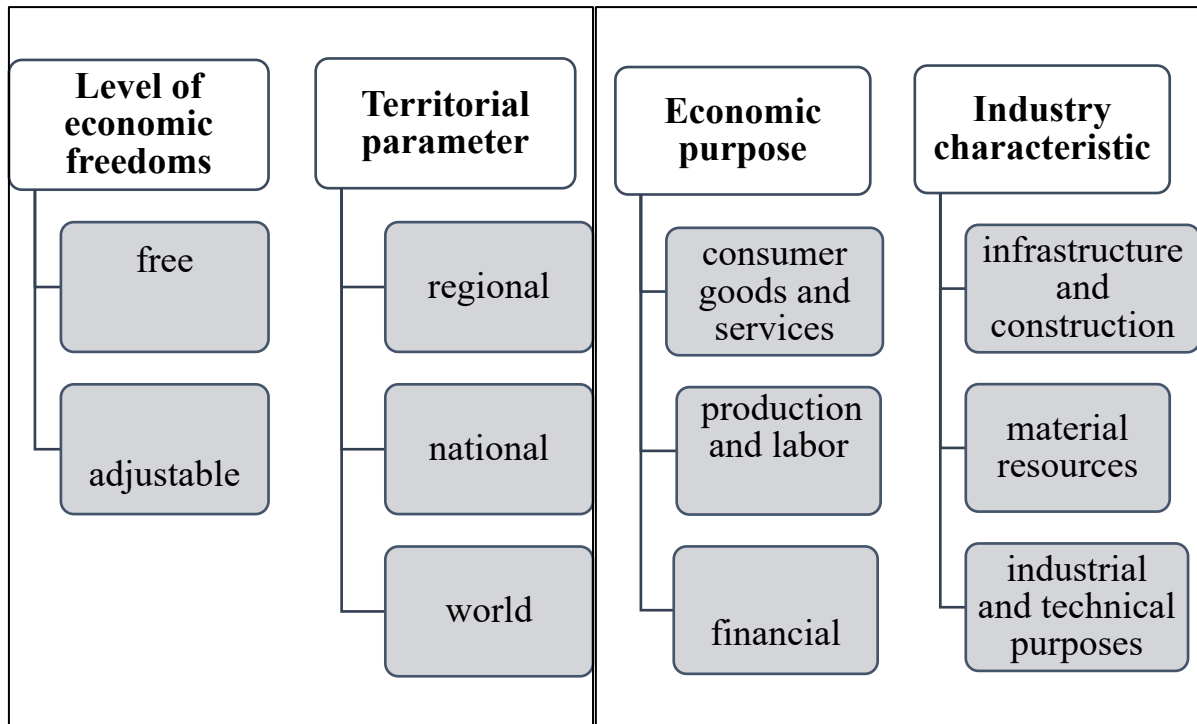


Fig. 2.2. Main types of markets, their criteria.

Depending on the level of economic freedoms, free (spontaneous) and regulated markets are distinguished. According to the degree of maturity of market relations, emerging and developed markets are distinguished. On a territorial basis, there are local, regional, national and world markets. The regional market covers a certain territory within the country. The national market is the totality of all the markets of the country. Interacting national markets form the world market. According to the criterion of "compliance with current legislation", markets are divided into legal and illegal (shadow). The latter is a system of commodity exchange operations prohibited by law. In a regulated market, an important role is played by the state, which exercises control over prices with the help of appropriate mechanisms.

According to the level of saturation with goods, the equilibrium, deficit and excess markets are distinguished. In an equilibrium market, demand is approximately equal to supply, in a deficit market, demand exceeds supply. An

excess market is characterized by an excess of supply over demand. Depending on the economic purpose of market objects, the market of consumer goods and services, the market of factors of production and the financial market are differentiated. The objects of the consumer market are goods and services intended for personal consumption of the population. This market consists of food and non-food markets, services and housing. The consumer market also includes the market of intellectual labor products, the objects of purchase and sale of which are books, films, works of art and folk art.

Markets are analyzed by industry, volume of transactions in the market (wholesale and retail markets) and other criteria. According to the degree of maturity of market relations, developed and emerging markets are distinguished.

The object of research of our qualification work is the pharmaceutical market, or the market of medicines. The pharmaceutical market is a part of the market of consumer goods and services by its functional feature.

The pharmaceutical market is a set of economic relations arising between its subjects regarding the purchase and sale and prescription and consumption of medicines and other pharmacy products.

The pharmaceutical market is an important industry sector that ranks among the top five most profitable industries in the world. The development of this area is an extremely important aspect, and the development of effective and safe solutions is a priority for all advanced global industries. This is due to the great importance of the pharmaceutical product, and its main purpose as protection against a high level of morbidity among the population.

The main mission of the medicines market is to provide the end consumer with high-quality and affordable medicines, which corresponds to the main goals of the National Drug Policy. It is in this market that the tasks of the state's social policy are implemented to ensure the rights of citizens to life and health. The high social importance of the pharmaceutical market is expressed in the dependence of the health, and in some cases the life of the consumer, on the availability of medicines. The peculiarities are expressed in the fact that the decision to purchase medicines

usually depends little on the end consumer, since most often drugs are prescribed by a doctor (pharmacists in pharmacies often also take part in the choice of medicines). The interest of wholesale and retail distributors of medicines is in the sale of the most expensive drugs, which represents the commercial side of the market.

The main economic laws of the pharmaceutical market are objective laws of commerce, such as:

- the law of demand (an increase in the market price, other things being equal, reduces the volume of demand and vice versa);
- the law of supply (an increase in the market price, other things being equal, increases the volume of supply and vice versa);
- the law of value.

The world market has its own specialization and can be divided into both pharmaceutical groups and individual drugs. It is common for large firms to merge or absorb smaller ones in order to create conglomerates that control a certain sector of the pharmaceutical market.

Let us dwell on the characteristics of specific features that are inherent in the pharmaceutical market. It should be noted that the main ones are:

- the trend towards global globalization of the pharmaceutical market;
- colossal profitability of the production of medicines;
- significant investments in scientific research, development of innovative medicines;
- the dependence of demand on epidemics, natural disasters and other extreme situations;
- high costs for marketing and sales of products;
- active intervention of the state in the regulation of the pharmaceutical market.

The global pharmaceutical market is a complex, multi-level, multifunctional formation with consistently high growth rates of production, sales and, accordingly, profitability indicators. These reasons are related to the specifics of the drug as a

product, the demand for which is growing regardless of economic and political factors.

The global pharmaceutical market, both in terms of production and consumption, is heavily concentrated in developed regions.

In 2022, almost 80% of the entire global drug market accounted for the three main regions of the planet (USA, Europe and Japan). Despite the significant development of the markets of China, India, Brazil and Turkey in recent years, the US pharmaceutical market remains the largest in the world with annual growth rates. The distribution of the pharmaceutical market in developing countries shows that Asia, Australia and Africa account for almost 21%, while Latin America accounts for 6% of the global pharmaceutical market (fig. 2.3).

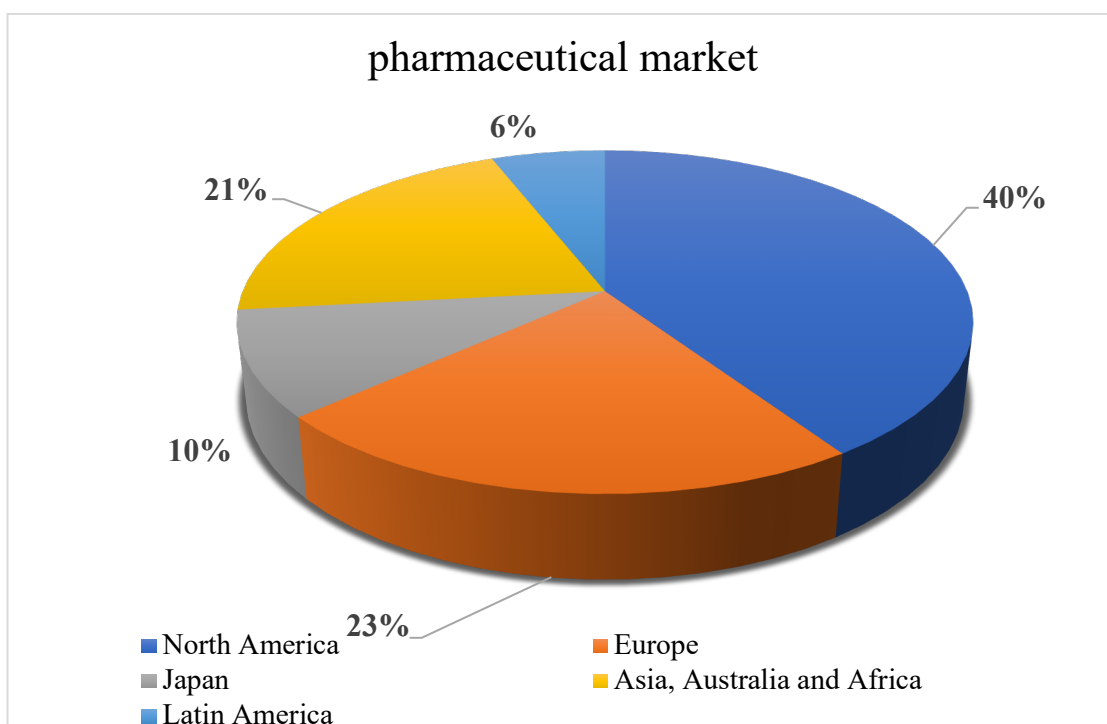


Fig. 2.3. Regional distribution of the global pharmaceutical market.

The main developments of new drugs are carried out in the most significant therapeutic areas (oncology, cardiology, neurology and psychiatry, gastroenterology, diabetes, etc.).

Biopharmaceutical companies are gradually beginning to displace traditional manufacturers from niches such as the fight against overweight, asthma and

allergies, cardiovascular diseases and atherosclerosis, and the relief of sudden and chronic pain.

The structure of the implementation of individual pharmacotherapeutic groups of drugs is mainly determined by national and regional characteristics, although there are also general trends. In the structure of the pharmaceutical market, most of the costs fall on oncological drugs, respiratory drugs, lipid regulators, antidiabetic and antipsychotic drugs. The small spread of Covid-19 and other modifications has a great impact on the demand and sale of medicines. The statistician conducted an analysis in 2023 of the best-selling drugs by the number of sales (fig. 2.4).

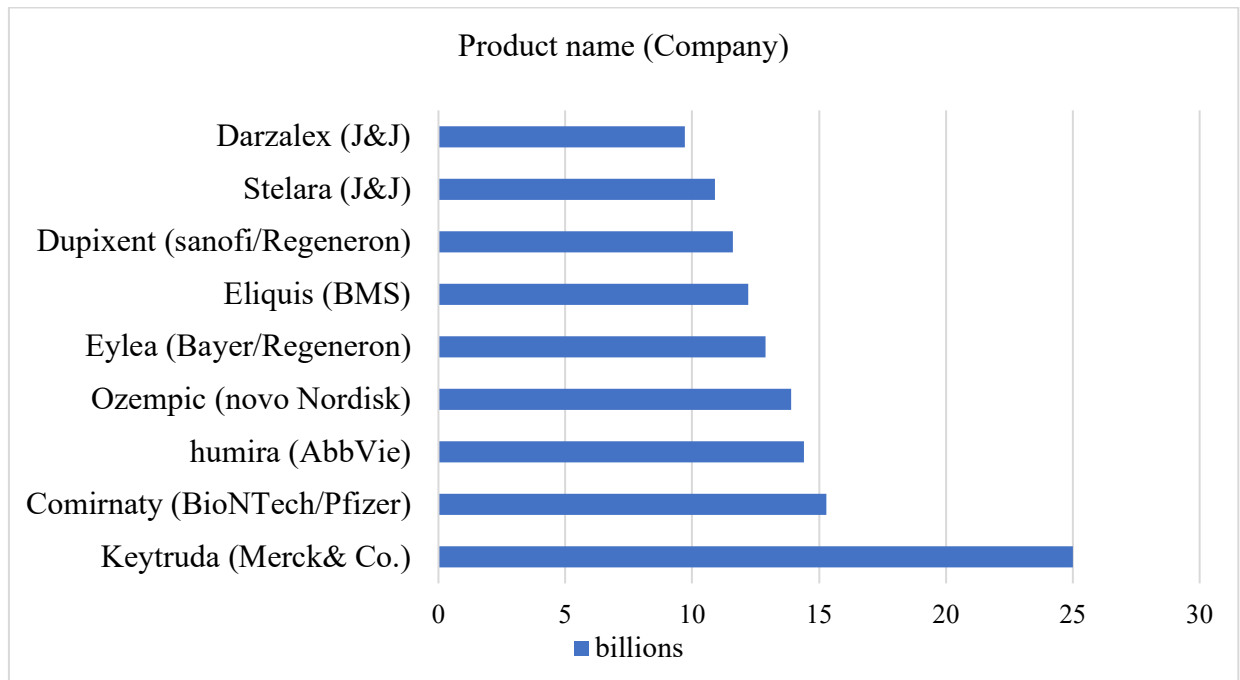


Fig. 2.4. Leading pharmaceutical products by sales worldwide in 2023

As you can see on the charts, the Comirnaty COVID-19 vaccine has lost its position in recent years and is sitting in second place. Merck's cancer drug Keytruda is the new best-selling drug in the world, with revenues of around US\$25 billion. Humira ranked third in the ranking of drugs in 2023 with a total revenue of \$14.4 billion.

This medicine is used mainly to treat rheumatoid and psoriatic arthritis. Popular drugs often have a big impact on the manufacturer. In some cases, pharmaceutical companies are highly dependent on their sales.

## **2.2. Market analysis methods in the pharmaceutical business**

The pharmaceutical market consists of the sale of medicines and related services by entities (organizations, individual entrepreneurs and companies) that produce medicines used to treat diseases. This industry includes businesses that produce biologics and pharmaceuticals. The pharmaceutical industry develops drugs to diagnose, treat, cure, or prevent disease, infection, and injury.

Pharmaceuticals are subject to various laws and regulations that relate to patenting, testing, safety, efficacy, and marketing. Pharmaceutical manufacturers produce pharmaceuticals made from active pharmaceutical ingredients and excipients.

Pharmaceutical market participants are market participants who are active in relation to the objects they affect and affect the circulation of medicines.

Circulation of medicines includes development, preclinical and clinical trials, expertise, state registration, standardization and quality control, production, manufacture, storage, advertising, release, sale, use, destruction, transportation, import into the territory and export from the country.

The objects of the pharmaceutical market include the market of medicines, pharmaceutical goods and services, medical products, dietary supplements, pharmaceutical products, pharmaceutical information, consumer needs and preferences, solvency, product quality, technology, etc.

Pharmaceutical market entities can be divided into organizations that perform certain functions in relation to pharmaceutical market objects (fig.2.5).

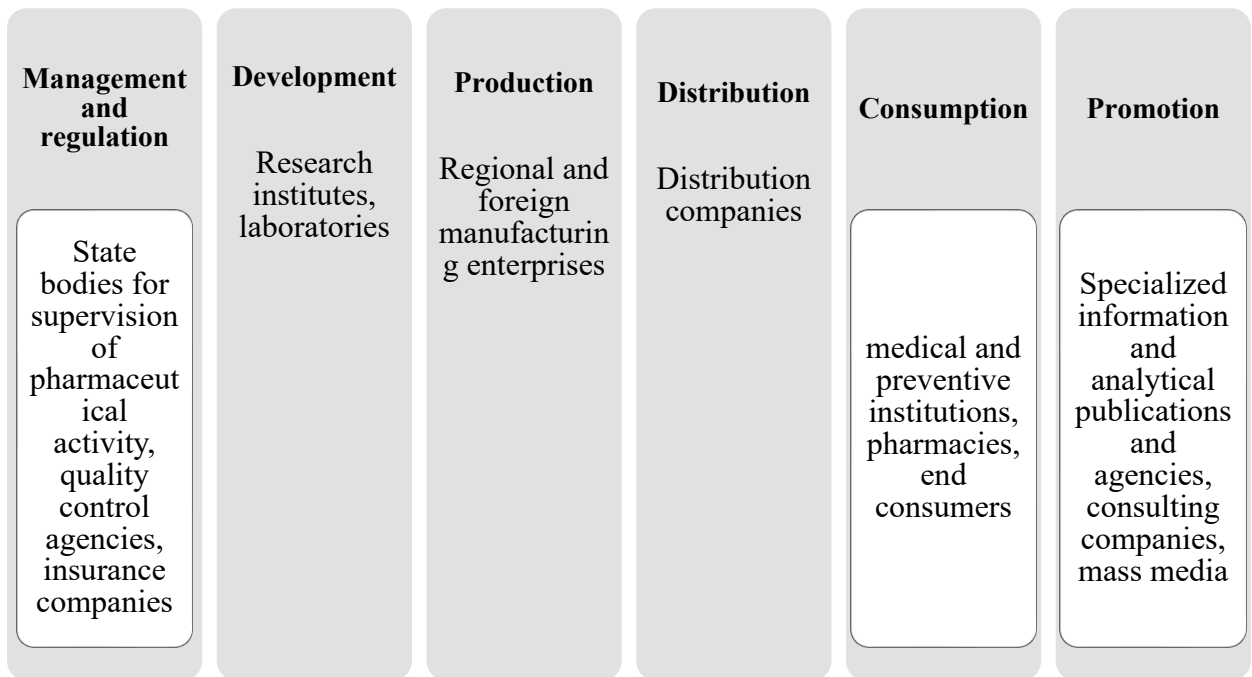


Fig. 2.5. Pharmaceutical market entities and their functions

The functions of management and regulation are delegated mainly to state bodies that supervise pharmaceutical activities, control the quality of medicines, the efficacy and safety of medicines. Production and distribution functions are represented by pharmaceutical industrial local enterprises, foreign companies, wholesale and retail organizations. Consumers are the main objects of the market, as they form the demand for medicines, they are divided into intermediate and final. Pharmaceutical information unites specialized subjects such as information and analytical publications and agencies, consulting companies and others.

An important role in the formation of the pharmaceutical market is played by the training of personnel who are focused on continuous pharmaceutical training at the stages of career guidance, diploma (secondary and higher) and postgraduate education. Subjects can also include research institutions and professional public organizations.

In terms of functionality, the pharmaceutical market refers to the market of consumer goods and services. The analysis of which can be carried out using systemic, marketing and institutional approaches.



The system approach to analysis is based on the principle of an open system and synergy.

The first principle is expressed in the fact that the pharmaceutical market is an open system representing a set of interrelated components. Among the main ones are:

- structural elements of the system (external environment, internal environment, "input-output" system);
- links between elements;
- pharmaceutical industry environment.

Another principle - synergy - means that a functioning system, due to the interaction between its structural elements, acquires properties that are absent by a simple summation of its elements. Moreover, a change in the properties of any of the elements will entail a change in the characteristics of the entire system as a whole.

The marketing approach in the analysis assumes that the pharmaceutical market can be considered as a set of existing and potential consumers of pharmaceutical products and a set of goods and services that meet the needs for pharmaceutical care.

A comprehensive analysis of the pharmaceutical market is widely used, which can be divided into two main elements:

- analysis of the external environment;
- competition analysis.

The first allows you to assess macro factors, that is, factors that none of the market participants can independently influence. These include: the dynamics of the gross domestic product, the level of expenditures on health care, the indicators of consumption of medicines per capita in the country as a whole, trends in regulatory policy, etc.

The concept of external environment analysis is to choose a path of development that would allow you to effectively adapt to a changing situation. For example, if the total volume of the pharmaceutical market has a clear tendency to

decrease, then this may lead to a proportional decrease in the sales of medicines of most of its participants (manufacturers, distributors, etc.). On the other hand, with a reduction in sales volumes, some manufacturing companies may refuse to actively promote products, other participants will leave the market, thus providing opportunities for the remaining operators.

The analysis of the external environment is carried out in two stages. At the first stage, the main task is to quantify the general trends in the development of the market. For this purpose, a historical analysis of the dynamics of the drug market is most often used, both according to the data available to the company and provided by companies that monitor sales in pharmacies. In particular, it is necessary to take into account the generalized data of state statistics - health care costs, demographic indicators, etc.

Along with the quantitative characteristics of the market, it is very important to study its qualitative features – this is the second stage of the analysis of the external environment. Only by carefully studying the needs of influencers in the selection of medicines (doctors, pharmacists, end consumers) can a company identify the drivers and motivations that significantly influence consumer behavior.

The main external driving force is the right marketing strategy, since drug promotion technologies prevail in the pharmaceutical market.

Market share is one of the main quantitative indicators characterizing the competitive position of a drug. It can be measured both in relation to the total market volume and in comparison with the strongest competitor.

The second element of a comprehensive market analysis is competition analysis, which involves showing firms that are competitors; which of them are close in focus; shows whether analogues are offered on the market - drugs containing another active substance, used for the same indications and their positions.

The following indicators are used in the competitive analysis method:

- sales volumes (total and by pharmacotherapeutic groups);
- financial performance (dynamics, availability of available resources, dependence on external financing);

- trading profit, profitability dynamics;
- promotion and advertising costs;
- characteristics of target groups of consumers, motivation of customer behavior;
- diversification of the product range;
- comparative analysis of the own drug and the drugs of the main competitors (assessment of the image of the drug, price per package, cost of a course of treatment for one day, cost of a full course of treatment, costs of promotion of the drug);
- the ratio of total promotion and advertising costs;
- efficiency of product distribution (type of distribution channels used, their flexibility, market coverage, level of inventory, location of warehouses);
- pricing policy (level and structure of costs, prices and discounts offered).

### **Conclusions to the 2 Chapter**

As a result of the analysis of the data of the special literature, it can be concluded that at the present stage the pharmaceutical market is a multi-level socio-economic dynamic regulated system of commodity-money relations between all participants in the social reproduction process (manufacturers, pharmacists, consumers) with its inherent organizational structure and mechanism of functioning, aimed at satisfying the production, economic and personal needs of people.

It can be argued that it is a complex multi-level structure in which all levels are interconnected and are under the influence and control of many determinants.

It is determined that the uniqueness of the world pharmaceutical market lies in meeting the needs of the population in preserving health, its improvement, prevention, which determines its socio-economic impact on the health of the population and the state of human capital, because it is an important component of the health care system of each country.

Thus, the analysis of the global market of medicines reveals a number of trends characteristic of the modern pharmaceutical industry, in particular:

- high level of concentration of production capacities by countries and companies, mainly in developed countries;
- growth of the generics segment and reduction of the segment of original innovative drugs;
- the geographical shift of the global pharmaceutical market from the North American and European regions to Asia and Latin America.

Based on the development trends and taking into account the prospects of the world market of pharmaceuticals, it is possible to identify the main directions and priorities for the development of the national pharmaceutical market, the main of which are the introduction of an effective mechanism of state control over the production, sale and advertising of pharmaceutical products, increasing the competitiveness of pharmaceutical products and the implementation of a rational pharmaceutical policy.

## **CHAPTER 3. ANALYSIS OF THE CURRENT STATE AND DEVELOPMENT TRENDS OF THE ARAB PHARMACEUTICAL MARKET**

### **3.1. Analysis of the structure of the pharmaceutical market in terms of market status**

The African continent is a free trade zone that opens up opportunities in the pharmaceutical field, which has favored the growth in demand for pharmaceutical products caused by the coronavirus pandemic (COVID-19). The pandemic has shown the pharmaceutical industry as one of the new industry trends that have emerged since the Covid-19 period and has potentially contributed to the integration of the MENA countries, taking advantage of existing economic complementarities.

In Chapter 3 of the qualified work, we focused our research on the analysis of the sector considered promising - the pharmaceutical sector - and on its growth potential.

At this stage of its development, the MENA pharmaceutical market accounts for about 2% of the world market. The pharmaceutical sector in the Middle East and North Africa has seen significant growth in recent years and is estimated to reach approximately US\$60 billion by 2025.

The main task of the government in the region is to improve the well-being of the growing population and develop health services. Therefore, the timely and safe provision of medical goods and pharmaceutical products has given rise to the development of the pharmaceutical industry in the region.

The increasing demand for pharmaceuticals in the Middle East is primarily due to changes in population demographics (growing population) and increasing life expectancy. The proportion of the population over 65 years old is expected to rise to 4% of the total population by 2030. The population growth of the Middle East averages more than 2% per year. These indicators are triggers for driving demand for pharmaceuticals in the coming years. The improvement and development of the

structure of health care, the growth of income per capita led to an increase in the demand for medical care. The creation of optimal medical institutions and the expansion of the range of medicines led to a significant reduction in infant mortality.

National health programs implemented by governments increase the level of public awareness of diseases. Unfortunately, the list of new lifestyle diseases is increasing, and this is contributing to the growth of pharmaceutical companies. The number of obesity-related diseases is growing in the region, and as a result, diabetes is developing. For example, the UAE is among the leaders, the country ranks second in the world and first in the Middle East in terms of the prevalence of diabetes (19.8%). They are followed regionally by Saudi Arabia (17.1%), Bahrain (15.8%), Kuwait (15.1%), Syria (11.8%) and Lebanon (8.9%), Morocco (5.7%).

One of the decisive stages in the development of the pharmaceutical market in the Middle East and Central Africa is the existence of the Gulf Cooperation Council (GCC). In 2014, partners from Bahrain, Oman, Saudi Arabia, Kuwait, the UAE and Qatar came together to create a strategy to harmonize drug prices, the main goal of which was to standardize drug prices in the region. GCC has made a significant contribution to the development of the pharmaceutical industry in the region.

Based on the research of country reports, it is possible to identify the main reasons for the growth of the pharmaceutical sector in the region. To a large extent, they are due to:

- high population growth;
- increased life expectancy;
- the prevalence of lifestyle-related diseases such as diabetes;
- the desire of the population of the countries of the region to receive quality medical services;

Government development programs play an important role in the economic growth of countries. Government initiatives are driving localization in the region's three main pharmaceutical markets. Table 1.1 provides an overview of government initiatives that encourage localization and its perceived benefits.

Table 1.1

Key initiatives of MENA governments to promote the development of the pharmaceutical industry

<b>KSA Vision 2030</b>	<b>Egypt Vision 2030</b>	<b>Algerian government's policies</b>
<ul style="list-style-type: none"> <li>• Focus on localized production for high-tech industries, including pharmaceutical companies.</li> <li>• Priority review and reduced registration times for local products.</li> <li>• Introduction of incentives: fast-track approval, exemption from revaluation regulation, financial and business assistance, low-cost land for production.</li> </ul>	<ul style="list-style-type: none"> <li>• Development of programs aimed at reforming the country's economy.</li> <li>• Reforms to stimulate domestic production and reduce the trade deficit for pharmaceuticals and biomedicine.</li> </ul>	<ul style="list-style-type: none"> <li>• Restricting imports in favor of local industries and attracting foreign direct investment.</li> <li>• Ensures that foreign investment is 51% Algerian.</li> <li>• The Ministry of Health provides fast-track approval and tender preferences for local drugs and Algerian manufacturers.</li> </ul>

Many countries have created favorable regulatory and economic regimes to encourage the localization of production by foreign companies. The ultimate goal of this business process is to bring an effective and safe drug to the patient at an affordable price. With the necessary resources available to countries, they bring value to the health system, while meeting the long-term goals of socio-economic growth in the region MENA [25]. Analyzing the territory in the context of pharmaceutical localization in the MENA region, we identified in table 1.2 a set of tools and areas in the pharmaceutical ecosystem that are the objects of influence of localization incentives offered to pharmaceutical actors [20].

Table 1.2

## Key Benefits of Pharmaceutical Localization for Pharmaceuticals in the MENA Region

<b>Price benefits</b>	<b>Product registration benefits</b>	<b>Import preferences</b>	<b>Localization targets</b>	<b>Tender purchase preferences</b>	<b>Reimbursement benefits</b>	<b>Financial support</b>	<b>Access to market</b>	<b>Export to other markets</b>	<b>Social benefits</b>
Saudi Arabia	Saudi Arabia		Saudi Arabia	Saudi Arabia		Saudi Arabia		Saudi Arabia	
UAE	UAE		UAE				UAE		
Algeria	Algeria	Algeria	Algeria	Algeria				Algeria	Algeria
Egypt				Egypt				Egypt	Egypt
Jordan				Jordan					
Morocco								Morocco	
Kuwait									
Tunisia			Tunisia						
Qatar									
Oman	Oman						Oman		
Lebanon									
Djibouti	Djibouti								



The current situation in the pharmaceutical markets of the MENA region varies significantly from country to country. At present, it is believed that this value mainly depends on the ability to pay and on the level of morbidity of the population. But it is also possible to distinguish the impact on the level of expenditure of retail pharmaceuticals: factors of distribution, prescription and dispensing of medicines; pricing and procurement policy; as well as patterns of consumption of original drugs and generics.

In Table 3.2, we gave an overview of the size of the pharmaceutical market in terms of total pharmaceutical spending (PhSp) and as a share of GDP and health expenditure in the ten study countries. Pharmaceutical costs cover the costs of prescription drugs (Rx) and over-the-counter (OTC) products. It also summarizes the relative importance of the patented and generic segments [2-5].

Table 3.2

Pharmaceutical spending as a share of healthcare expenditure, 2022

<b>Country</b>	<b>PhSp (% of GDP)</b>	<b>PhSp (% of hsp)</b>	<b>PhSp (Us\$bn)</b>	<b>Patented PhSp (%total)</b>	<b>Generic PhSp (% total)</b>	<b>Rx PhSp (% total)</b>	<b>OTC PhSp (% total)</b>
Lebanon	2.47	39.1	1.726	49.5	30.8	85.4	14.6
Jordan	2.85	32.3	1.145	34.5	48.3	81.8	18.2
Algeria	3.31	41.2	2.699	52.0	32.5	83.7	16.3
Morocco	1.35	24.8	1.905	41.2	29.7	76.3	23.7
Egypt	1.31	25.9	6.238	50.3	32.3	83.9	16.1
Tunisia	1.30	21.3	1.5	48.7	31.8	78.6	21.4
Bahrain	1.20	19.0	0.693	57.7	31.7	90.1	9.9
KSA	1.16	22.5	8.443	54.5	32.5	88.9	11.1
Oman	0.90	22.3	0.968	48.8	39.8	92.3	7.7
UAE	0.87	18.3	3.717	67.2	18.4	87.6	12.4
Qatar	0.57	10.1	0.554	68.6	21.2	92.6	17.4

Pharmaceutical spending accounts for 0.57% to 3.31% of GDP and 10% to 41.2% of healthcare spending in MENA countries. Pharmaceutical spending as a share of healthcare expenditure is highest in Algeria (41.2%), Lebanon (39.1%) and Jordan (32.3%) [13]. Pharmaceuticals spending is lowest as a share of GDP or healthcare spending in Qatar (0.57% and 10.1%, respectively), UAE (0.87% and 18.3%, respectively), and Oman (0.90% and 22.3%, respectively).

Overall, in the countries studied, sales of over-the-counter pharmaceuticals account for a significantly smaller share of total sales compared to sales of prescription pharmaceuticals.

In addition, sales of patented pharmaceuticals account for a larger share of total sales than sales of generics.

According to IQVIA's quarterly report in 2024, the total volume of the Middle East and Africa pharmaceutical market reached USD 32,6 billion. Over the past two years, the total volume of pharmaceutical products sold in monetary terms has increased by more than 10 percent (fig.3.1) [8,12,24].

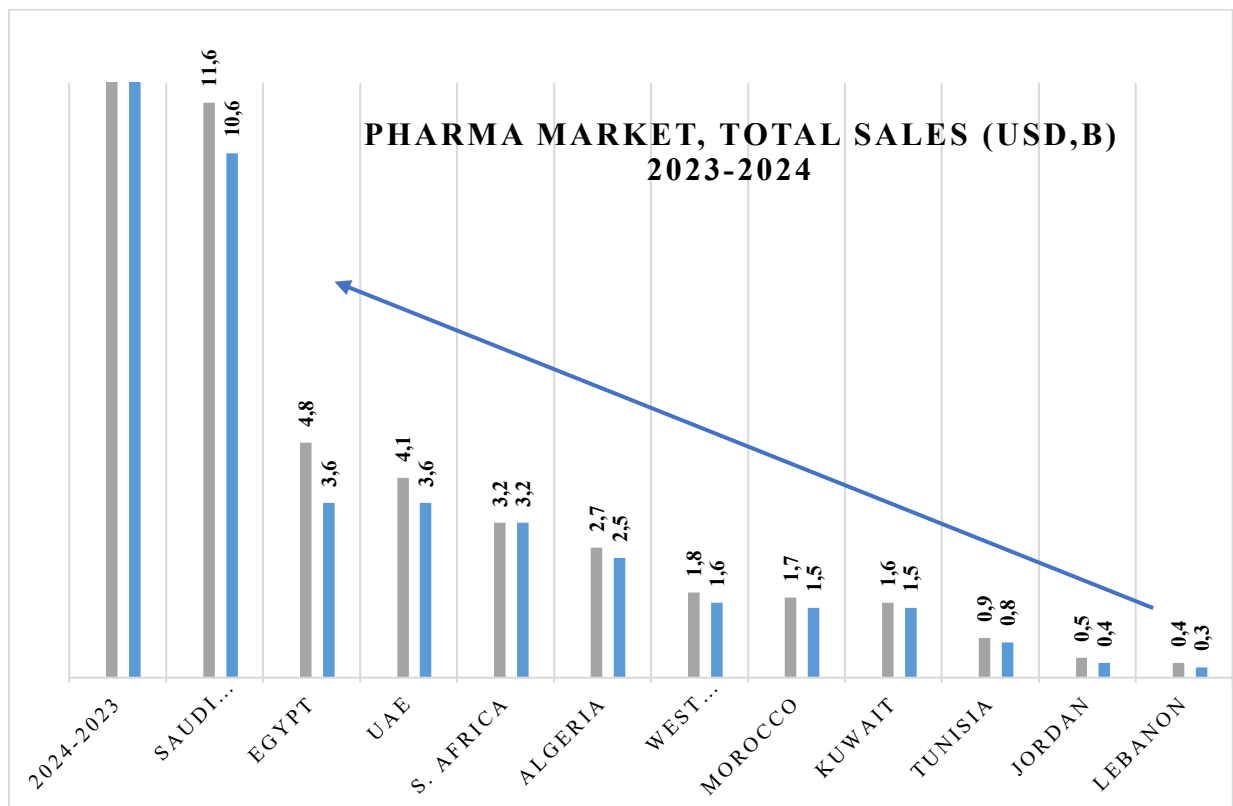


Fig. 3.1. Key pharmaceutical markets in the Middle East and Africa (USD, B)

Kingdom Saudi Arabia (KSA) was the largest pharmaceutical market in the region in 2024 with a volume of USD 11.6 billion (expanded at 9.1% PPG), followed by Egypt with USD 4.8 billion. The other five leaders include the United Arab Emirates at 4.1 and Algeria at 2.7. Overall, the Middle East and Africa pharmaceutical market reached a value of US\$32.7 billion. Sales value increased by 10.5% previous period growth (PPG).

Unit sales in some countries remained unchanged or decreased. While total unit sales decreased by -0.9% PPG and stood at \$8.6 billion in 2024. In the previous year it was equal to 8.7 billion (fig.3.2). This can be justified by the increase in the price of medicines in recent years [22-25].

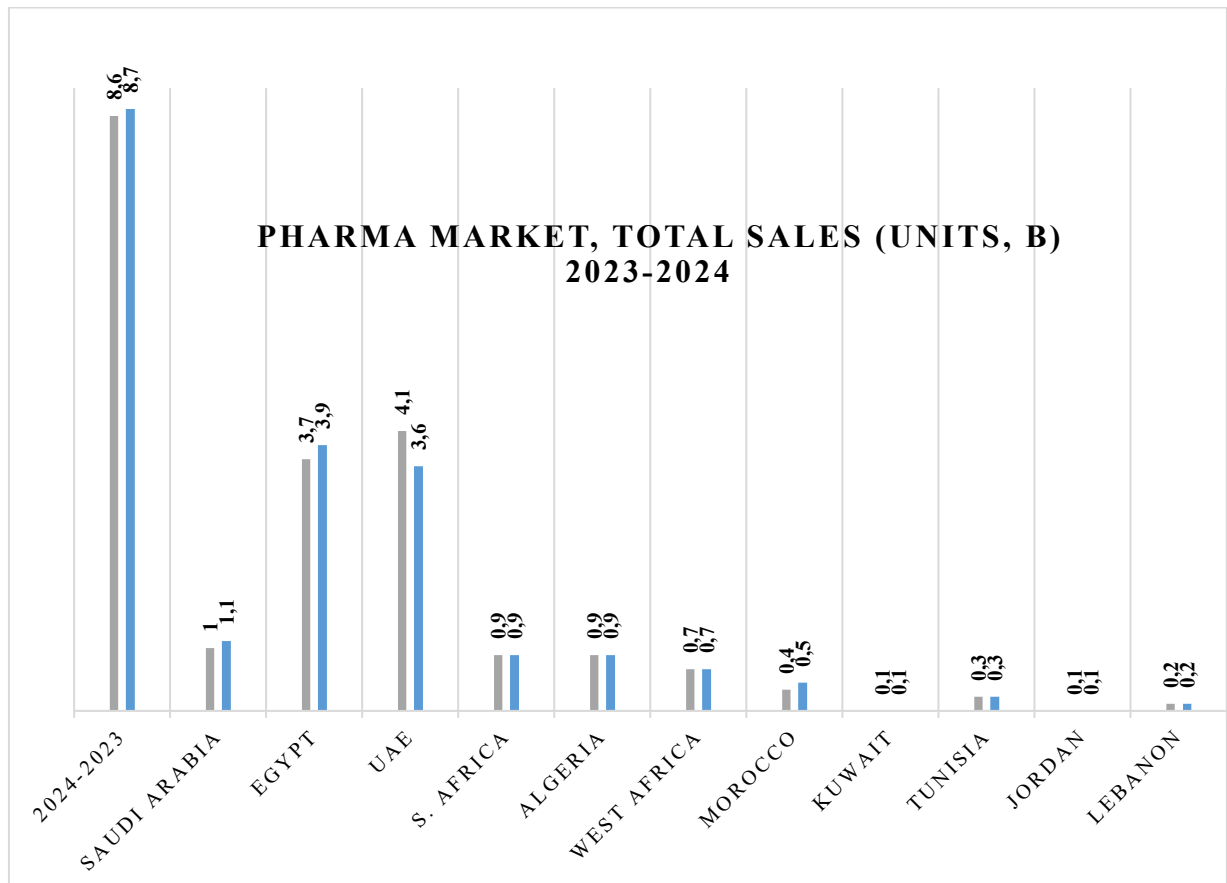


Fig. 3.2. Key pharmaceutical markets in the Middle East and Africa (Units, B)

In 2024, Saudi Arabia accounted for 37 percent of total pharmaceutical sales in the Middle East and Africa region. The Egypt had the second-largest share of total sales (15%), but still less than half of KSA (fig.3.3) [33,34].

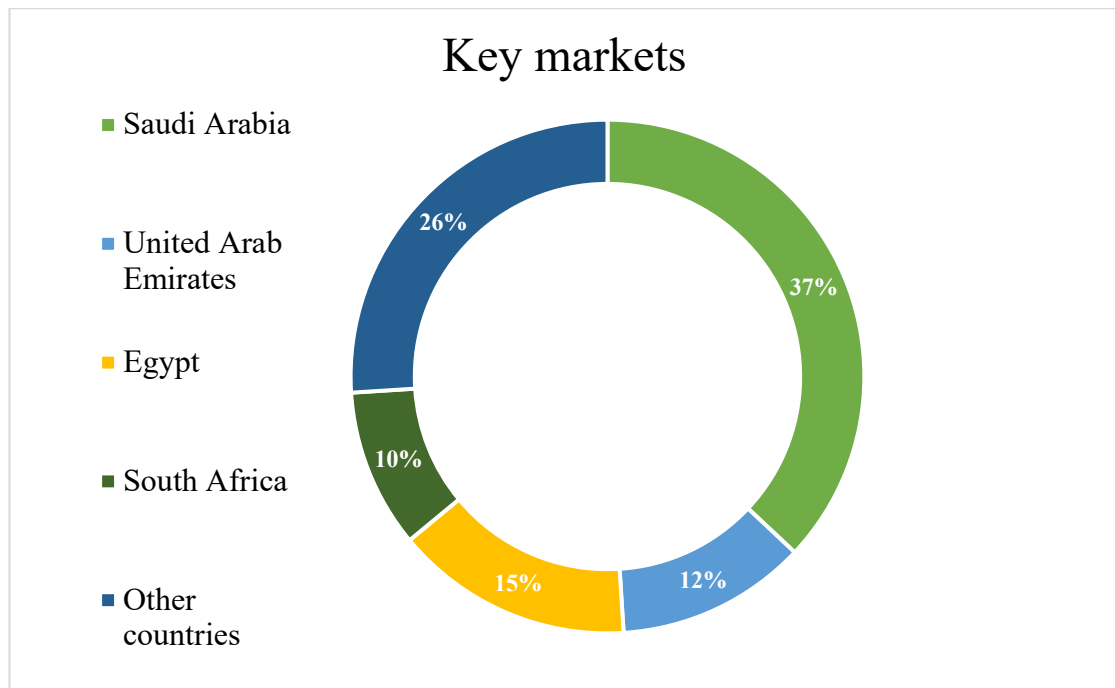


Fig. 3.3. The largest pharmaceutical markets of sales in the Middle East and Africa

### 3.2 Research on the development of the pharmaceutical industry in MENA countries

In Arab countries, local production of medicines accounts for varying shares of the national market, ranging from 0 percent to more than 90 percent [4]. On average, the local Arab pharmaceutical industry covers more than 45% of the entire Arab market. Since the beginning of the first decade of the 21st century, many countries in the Arab region have initiated multiple reforms. One of the key initiatives is to improve the healthcare sector, which is considered a national priority, with an increased focus on the development of the pharmaceutical industry and related sectors to meet domestic demand. In this regard, regulators, local industries and global pharmaceutical companies have realized the importance of this initiative and are working to strengthen local pharmaceutical production.

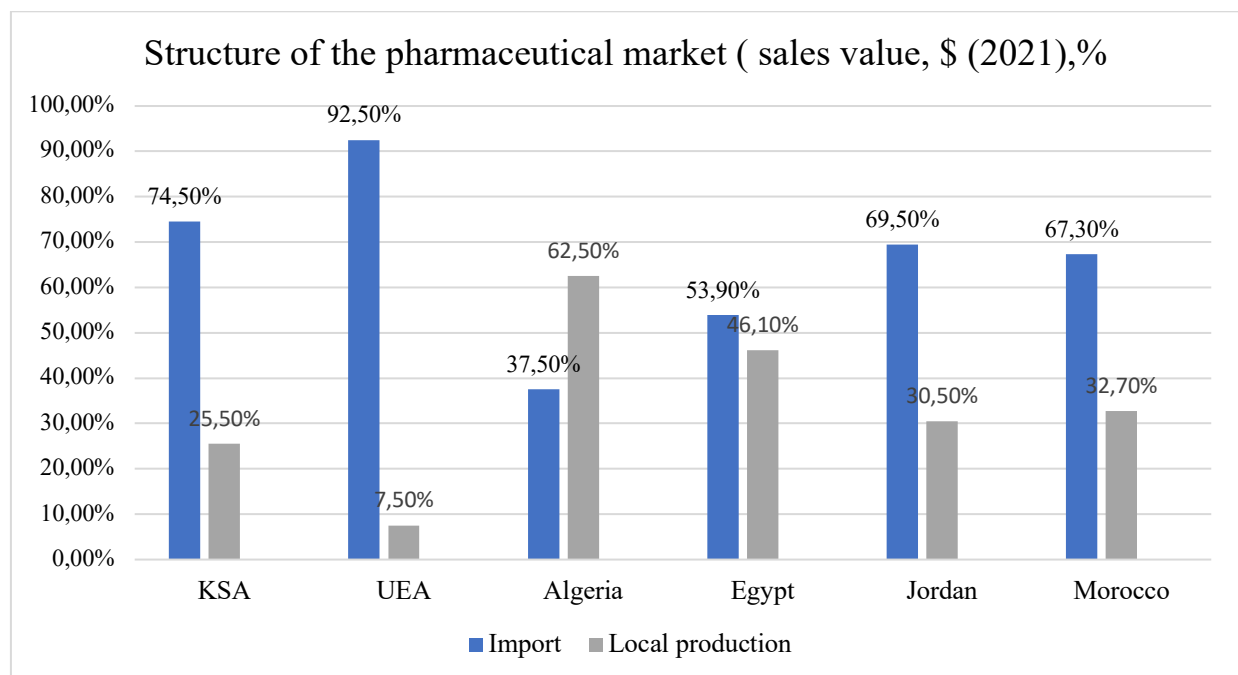
The center of pharmaceutical activity in the Middle East is Saudi Arabia and the United Arab Emirates. These countries have a reputation as a state with a very high level of national health care and strict regulation of activities related to the

production and distribution of medicines. Thanks to pharmaceutical placement efforts, local pharmaceutical production has increased over the past few years.

After studying the report, it can be noted that Algeria had the highest value of sales of locally produced medicines to the population (62.3%). While the United Arab Emirates had the lowest and accounted for 7.5% of total sales value.

The UAE received the highest sales value from imported pharmaceuticals (92.5%), followed by Saudi Arabia, which accounted for 74.5%. Algeria and Egypt had the highest sales volumes, 62.5% and 46.1%, respectively, of local production in the region, while the UAE reported the lowest (7.5%). Jordan and Morocco reported sales from imported pharmaceuticals of 69.5% and 67.3%, respectively.

A comparison of the sales volume of imported and locally produced pharmaceuticals from Arab countries in 2021 is shown in fig. 3.4 [22-25].



Source: IQVIA dataset and expertise

Fig. 3.4. The share of local and import production of medicines that covers the needs of citizens for medical services.

Most of the drugs produced in local factories are prescription drugs. In some countries, about 40 percent of drugs are produced under license or in subsidiaries of transnational companies. For profitable partnerships, pharmaceutical companies try

to conquer potentially interesting markets and attract local players in the region who have market knowledge to cooperate. Large pharmaceutical companies help the growth of local industry, because they have highly developed technologies, research and development skills, and strong brand capital. Through joint ventures, strategic alliances, or licensing agreements, international players with enhanced capabilities complement the value proposition of domestic players. For example, Biocon is a partner of Tabuk Pharmaceutical Manufacturing Company, a leading pharmaceutical company in the Middle East and North Africa. Leading multinational companies such as GSK, Sanofi, and Abbott Laboratories have also established manufacturing units in the region.

We have highlighted the major pharmaceutical corporations representing the MENA market in 2023 (fig.3.5) [27-29].

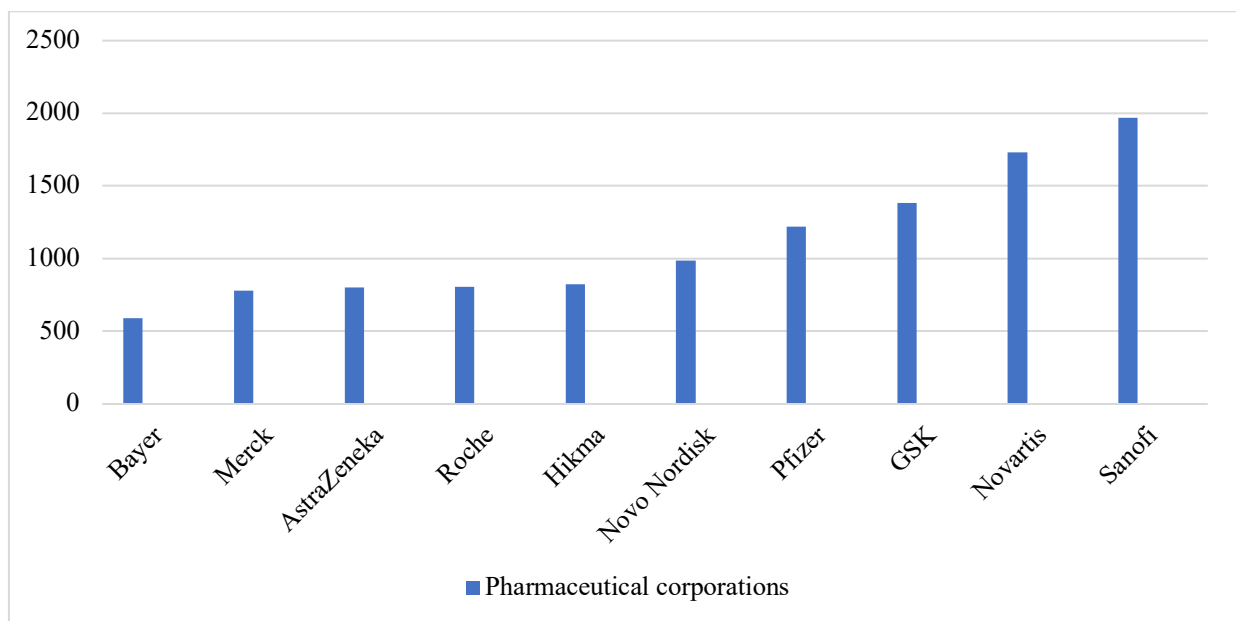


Fig. 3.5. Ranking of the best pharmaceutical companies MENA 2023 (sales USD ml)

Hikma, Tabuk and Spimaco are among the largest companies and collectively produce US\$2.4 billion in sales and account for 18.5% of total sales generated by local players in the Middle East and Africa.

Despite the success of local companies, whose share has grown by 10% in value terms in recent years, however, Big Pharma still controls a large share in the

Middle East and Africa, with 58% of total sales. Sanofi, Novartis and GSK continue to be in the top three (fig.3.6) [27-29].

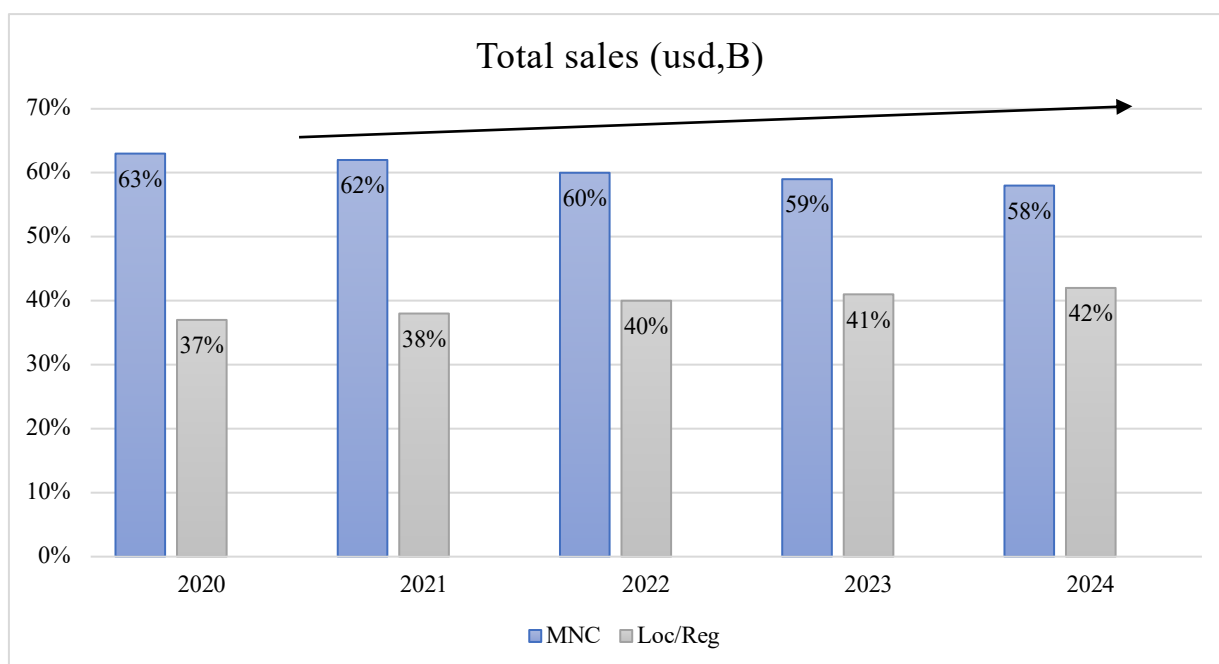


Fig. 3.6. Share of local/regional companies in value terms

The growth of local and multinational companies in the region was mainly reflected in Egypt (27.9; 38.2%, respectively), the UAE (15.9; 16.8%) PPG. In Saudi Arabia, the number of multinational companies has increased compared to the previous period.

Saudi Arabia has the largest manufacturing sector in the Gulf, but most of its local production is destined for export markets. Domestic production accounts for about 15% of the total supply of medicines on the market. The kingdom is home to about 25 pharmaceutical manufacturers, including local companies and subsidiaries of multinational pharmaceutical giants.

Leading local players in the region include Spimaco, Jamjoom Pharma, Tabuk Pharmaceutical Manufacturing, Jazeera Pharmaceutical Industries and Julphar. Local companies mainly manufacture generic drugs, while some also manufacture under license on behalf of multinational pharmaceutical companies to supply the domestic and regional markets.

Besides Saudi Arabia and the UAE, other countries that are rapidly overtake in terms of demand and production are Qatar and Bahrain. Qatar's pharmaceutical industry is benefiting from the implementation of a national health insurance program. At the same time, in Bahrain, the government is increasingly encouraging the use of generic drugs among doctors and patients.

Today, the Arab pharmaceutical market is characterized by a significant variety of medicines. In this paper, based on the segmentation of the drug market in the context of market status, we analyzed the main trends in the development of the drug market. The pharmaceutical industry is diverse, encompassing different segments that cater to different therapeutic needs and patient populations.

The pharmaceutical market is heavily influenced by various therapeutic areas that provide revenue. As of 2024, the following therapeutic areas are expected to generate the highest revenues (fig.3.7) [32].

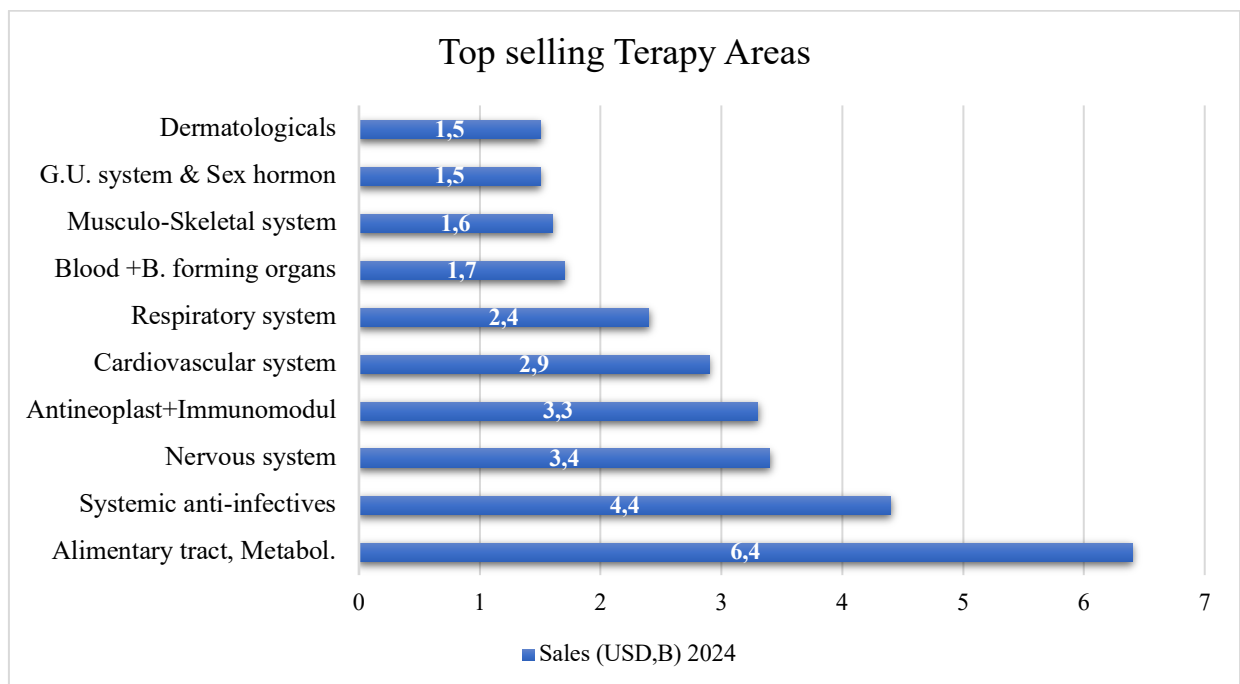


Fig. 3.7. Best-selling therapy zones, MENA (2024)

Certain areas of therapy are experiencing rapid growth, attracting significant investment. By 2030, oncology, immunology, and metabolic diseases (including obesity and diabetes treatments) are projected to dominate the global market. The rise in cancer cases can be attributed to several factors, including aging populations



in high-income countries and an overall decline in mortality from other causes, such as cardiovascular disease.

The market for obesity and diabetes is now expanding rapidly thanks to innovative treatments. 2014 was a turning point for obesity, with the World Health Organization recognizing it as a chronic disease requiring long-term treatment. Since then, new treatments have expanded the market, creating opportunities for growth in the treatment of diabetes and obesity. New weight loss drugs have changed patient outcomes, leading to an increase in demand. Diseases associated with diabetes and metabolic disorders are the most common in Arab countries.

An analysis of the priority areas for the development of the pharmaceutical industry in MENA showed that, the most promising segment in therapeutic treatment in the MENA countries remains the sphere of the gastrointestinal tract. Medicines for the treatment of the digestive tract and metabolism accounted for the largest value of pharmaceutical sales in the Middle East and Africa region, at around US\$6.2 billion per year, by the end of 2024. This accounted for 20 percent of total therapeutic sales in the Middle East region. Systemic anti-infectives, which had the second-highest value of pharmaceutical sales at US\$4.2 billion.

At the same time, Saudi Arabia accounted for 34.6% of the share of total gastrointestinal sales in the region, recording an increase of 14.6% PPG in value terms. Anticancer drugs + immunomodulators grew at the fastest rate (17% PPG), with 62% of total sales in the therapeutic sector coming from Saudi Arabia and the UAE, with PPG growth of 10.9% and 31.7%, respectively.

### **Conclusions to the 3 Chapter**

After analyzing our research, we can draw a first conclusion: market size in terms of total sales showed an impressive figure of US\$32 billion overall for the Middle East and North Africa. However, in general, the North Africa region is expected to experience faster growth rates in the next couple of years. Saudi Arabia is the leading pharmaceutical market among Middle Eastern countries.

The results of the study confirmed the positive impact of industrial localization on the development of innovations, healthy competition and attracting investments in the pharmaceutical sector in the MENA region. They also highlighted the key role in the use of local assets and the development of local opportunities. It was found that one of the popular mechanisms that had a positive impact on the localization system for all countries was pricing.

The analysis of the literature showed the state of development of multinational corporations in Arab countries. The recent vigorous growth of the consumer healthcare and pharmaceuticals market in the Middle East and Middle East region has been largely driven by investments by multinational corporations dominating the market. TNCs occupy the largest part of the market (62%), but the growth compared to native companies is slower and amounts to 9%. The companies: Sophal, Dar Al Dawa, Sun Pharma, and Taha Pharma, are the fastest-growing corporations in Algeria, the UAE, Morocco, and Tunisia, respectively.

An analysis of the drug consumption market segment showed that diseases of the digestive tract continue to be the largest therapeutic areas, while anti-cancer drugs and immunomodulators are the fastest growing.

A study of the therapeutic classes of the MENA market shows that the predominant share is accounted for by drugs for the digestive system, metabolism, antibiotics and drugs for the central nervous system, which account for half of the market.

It has been found that, in the Middle East, the retail channel dominates the market in terms of value and sales, while the share of hospital channels continues to grow steadily. In addition, governments in the Middle East are investing heavily in medical technology.

## GENERAL CONCLUSION

1. The first section of the work is devoted to the theoretical foundations of the functioning of the pharmaceutical market. The concept and mission of the market of medicines are highlighted, the economic laws in force on the market, its specific features are analyzed. Various approaches to defining the objects of the pharmaceutical market are presented, as well as their features that affect the functioning and development of the market.

2. An analysis of data from specialized literature, as well as legislative acts, which highlight issues of effective regulation of the pharmaceutical market in the world and in the Arab countries of use, was conducted.

3. We reviewed the experiences of several countries in healthcare spending and pharmaceutical spending, in particular. Any state is responsible for providing its population with public goods, including high-quality and affordable medicines. One of the key characteristics of the industry under study (in contrast to other industries) is its high social significance. Global health spending continues to rise.

4. It has been established that the pharmaceutical market, unlike a few other world commodity markets, has its own specifics, and its key feature is the low-price elasticity of products, since many drugs are bought on prescription and consumers in the absence of alternatives have no choice but to buy the necessary drugs regardless of their price. Therefore, in almost all countries, national pharmaceutical markets are actively regulated.

5. A review of the relevant literature suggests that the pharmaceutical sector in the Arab States is still in its infancy. Healthcare is a priority for national governments, and supportive policies are critical to the sector's growth.

6. Based on the country market analysis, Saudi Arabia has emerged as the dominant country in the Middle East and Africa pharmaceutical market in 2024. One of the key factors contributing to Saudi Arabia's influence is its strong economy, driven primarily by oil exports and government initiatives aimed at diversification.

7. The analysis of the key drivers of the MENA market has been conducted. It has been determined that the Middle East and Africa region is facing a sharp increase in chronic diseases such as cardiovascular diseases, diabetes, cancer and respiratory diseases, which have become serious public health problems and have determined the demand for drugs.

8. By analyzing the overall level of health expenditure and pharmaceuticals, it can be concluded that the consumer allocates a large part of his budget to health-related expenses, including the purchase of pharmaceuticals. Pharmaceutical expenditures account for 0.57% to 3.31% of GDP and 10% to 41.2% of health expenditures in MENA countries.

9. By product type, prescription drugs have become the dominant segment in the Middle East and Africa pharmaceutical market in 2024.

10. Governments are providing great support to the pharmaceutical sector and providing the necessary incentives to encourage local production of drugs and reduce dependence on imports. Increased domestic production, foreign investment and consumption of generics are supporting the development of the market.

11. Research has been conducted on the dynamics of the development of the global and Arab pharmaceutical market as the most important component of healthcare over the years. The pharmaceutical market in the Arab region grew at a CAGR of 8-10% between 2020 and 2024, with industry growth in Qatar and Bahrain outpacing regional growth.

12. It has been established that foreign drug manufacturers are required to sell their products in the country only through local import and distribution companies registered with the Ministry of Health. The entry of foreign investors into the wholesale and distribution segment of pharmaceutical products is limited.

13. Key market MENA players are Sanofi, Novartis, Julphar, Neopharma, Pfizer, GlaxoSmithKline, in medical devices - Medtronic, Siemens Healthcare, F. Hoffmann-La Roche, Abbott Laboratories and Boston Scientific Corporation.

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**National University of Pharmacy**

Faculty pharmaceutical  
Department of social pharmacy  
Level of higher education master's  
Specialty 226 Pharmacy, industrial pharmacy  
Educational and professional program Pharmacy

**APPROVED**  
**The Head of Department**  
**of Social Pharmacy**

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**Alina VOLKOVA**  
“11” of September 2024

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**ASSIGNMENT  
FOR QUALIFICATION WORK  
OF AN APPLICANT FOR HIGHER EDUCATION**

**Yassine ERROUHI**

1. Topic of qualification work: «Study of the features of the modern arab pharmaceutical market», supervisor of qualification work: Lyubov TERESHCHENKO, PhD, associated professor, approved by order of NUPh from “27” of September 2024 № 237
2. Deadline for submission of qualification work by the applicant for higher education: May 2025.
3. Outgoing data for qualification work: authors' publications; media publications; official health sites; State Statistics Service of the world; sites of WHO, Internet, etc.
4. Contents of the settlement and explanatory note (list of questions that need to be developed): analysis of the current situation of the economic situation in the Arab states; studying of the healthcare systems in MENA countries; analysis of modern problems of the pharmaceutical market; research on the development of the pharmaceutical industry in MENA countries.
5. List of graphic material (with exact indication of the required drawings):  
tables – 5, schemes – 13.

6. Consultants of chapters of qualification work

Chapters	Name, SURNAME, position of consultant	Signature, date	
		assignment was issued	assignment was received
1	Lyubov TERESHCHENKO, associate professor of higher education institution of department of social pharmacy	11.09.24	11.09.24
2	Lyubov TERESHCHENKO, associate professor of higher education institution of department of social pharmacy	21.11.24	21.11.24
3	Lyubov TERESHCHENKO, associate professor of higher education institution of department social of pharmacy	24.12.24	24.12.24

7. Date of issue of the assignment: «11» of September 2024.

**CALENDAR PLAN**

№ 3/II	Name of stages of qualification work	Deadline for the stages of qualification work	Notes
1	Study of concept of the pharmaceutical market. Study of the current situation of healthcare systems in MENA countries	<i>October/November 2024</i>	<b>done</b>
2	Analysis of the structure of the pharmaceutical market in terms of market status	<i>December/January 2024-2025</i>	<b>done</b>
3	Research on the development of the pharmaceutical industry in MENA countries	<i>February/March 2025</i>	<b>done</b>
4	Registration of a qualification work according to the general requirements	<i>March/Apri 2025</i>	<b>done</b>
5	Preparation of the report and multimedia presentation in official protection of a qualifying work	<i>May 2025</i>	<b>done</b>

**An applicant of higher education** \_\_\_\_\_ Yassine ERROUHI

**Supervisor of qualification work** \_\_\_\_\_ Lyubov TERESHCHENKO

**ВИТЯГ З НАКАЗУ № 237**  
**По Національному фармацевтичному університету**  
**від 27 вересня 2024 року**

Затвердити теми кваліфікаційних робіт здобувачам вищої освіти 5-го курсу Фм20(4.10д) 2024-2025 навчального року, освітньо-професійної програми – Фармація, другого (магістерського) рівня вищої освіти, спеціальності 226 – Фармація, промислова фармація, галузь знань 22 Охорона здоров'я, денна форма здобуття освіти (термін навчання 4 роки 10 місяців), які навчаються за контрактом (мова навчання англійська та українська) згідно з додатком № 1.

Прізвище, ім'я здобувача вищої освіти	Тема кваліфікаційної роботи		Посада, прізвище та ініціали керівника	Рецензент кваліфікаційної роботи
по кафедрі соціальної фармації				
Еррухі Яссін	Дослідження особливостей сучасного арабського фармацевтичного о ринку	Study of the features of the modern arab pharmaceutical market	Доцент Терещенко Л.В.	Доцент Бондарєва І.В.



## **ВИСНОВОК**

**експертної комісії про проведену експертизу  
щодо академічного плагіату у кваліфікаційній роботі**

**здобувача вищої освіти**

**«05» травня 2025 р. № 331121092**

Проаналізувавши кваліфікаційну роботу здобувача вищої освіти Еррухі Яссін, групи ФМ20(4,10)англ-03, спеціальності 226 Фармація, промислова фармація, освітньої програми «Фармація» навчання на тему: «Дослідження особливостей сучасного арабського фармацевтичного ринку / Study of the features of the modern arab pharmaceutical market», експертна комісія дійшла висновку, що робота, представлена до Екзаменаційної комісії для захисту, виконана самостійно і не містить елементів академічного плагіату (компіляції).

**Голова комісії,  
проректор ЗВО з НІР,  
професор**



**Інна ВЛАДИМИРОВА**

## REVIEW

**of scientific supervisor for the qualification work of the master's level of higher education of the specialty 226 Pharmacy, industrial pharmacy**

on the topic: «**Study of the features of the modern arab pharmaceutical market**»

**Relevance of the topic.** Currently, the Arab countries are at the next stage of socio-economic reforms aimed at creating a democratic society based on a market economy. In the current conditions, issues related to the formation, regulation and functioning of the pharmaceutical sector, which is one of the most dynamic with a significant intensity of development of innovative activities in the production of pharmaceuticals, based on high technologies and high-tech production, seem to be extremely relevant and priority.

**Practical value of conclusions, recommendations and their validity.** The pharmaceutical market in Arab countries has shown significant progress in recent years due to favorable demographic and economic factors, as well as strong state support for healthcare. Despite the obvious relevance of the problems investigated in this qualification work, it can be noted that this topic has been insufficiently covered both in Arab science and in public publications. Thus, the research direction of Yassine ERROUHI qualifying work is relevant and has practical significance.

**Assessment of work.** During his qualification work, Yassine ERROUHI studied and analyzed a significant amount of literature and regulatory legal acts on the topic. The analysis carried out confirms the relevance of the research and puts forward the need for their implementation.

**General conclusion and recommendations on admission to defend.** On structure this work meets the requirements to qualification work in "Pharmacy" and can be presented to protection to EK of NUPh.

Scientific supervisor \_\_\_\_\_ Lyubov TERESHCHENKO

«08» of May 2025

## REVIEW

for qualification work of the master's level of higher education, specialty  
226 Pharmacy, industrial pharmacy

Yassine ERROUHI

on the topic: «**Study of the features of the modern arab pharmaceutical market**»

**Relevance of the topic.** Pharmaceutical market in the Arab countries has witnessed considerable progress over the years due to favorable demographic and economic factors, and strong government support for healthcare. Despite progress, the pharmaceutical sector is still in its nascent stage, and drug production is at a relatively early stage due to a number of obstacles.

**Theoretical level of work.** The qualification work is a theoretical generalization and solution to a problem that is designed to substantiate the effective development of the Arab pharmaceutical sector in modern conditions.

**Author's suggestions on the research topic.** As a result of the study, conclusions were drawn that: ensuring the availability of medicinal care for all segments of the population through the introduction of state programs, health insurance, regulation of pricing, and the development of its own production of drugs; improving the quality of pharmaceutical support through improving the system of state registration of drugs, licensing, certification and quality control of drugs along the entire path of its promotion from manufacturer to consumer.

**Practical value of conclusions, recommendations and their validity.** These studies have shown the general level of development of the pharmaceutical sector in the Arab countries is similar, although there are some differences in the rules regarding the regulation of medicines, as well as in the degree of compliance and enforcement of these rules.

**Disadvantages of work.** Yassine ERROUHI

qualification work, submitted for review, made a good impression, primarily due to its content and the relevant current standards of research results.

**General conclusion and assessment of the work.** On structure the specified work conforms to requirements to qualification work in "Pharmacy" and can be presented to protection to EC of NUPh.

Reviewer \_\_\_\_\_ Irina BONDAREVA

«09» of May 2025

**ВИТЯГ**  
**з протоколу засідання кафедри соціальної фармації**  
**№ 21 від «16» травня 2025 року**

**ПРИСУТНІ:** зав. каф. доц. Аліна ВОЛКОВА, проф. Ганна ПАНФІЛОВА, проф. Вікторія НАЗАРКІНА, доц. Галина БОЛДАРЬ, доц. Наталія ГАВРИШ, доц. Тетяна ДЯДЮН, доц. Юлія КОРЖ, асист. Альміра НОЗДРІНА, доц. Вікторія МІЩЕНКО, доц. Ірина ПОПОВА, доц. Олександр СЕВРЮКОВ, доц. Ірина СУРІКОВА, доц. Любов ТЕРЕЩЕНКО, доц. Наталія ТЕТЕРИЧ.

**ПОРЯДОК ДЕННИЙ:**

Про представлення до захисту в Екзаменаційній комісії кваліфікаційних робіт.

**СЛУХАЛИ:** завідувачку кафедри доц. Аліну ВОЛКОВУ з рекомендацією представити до захисту в Екзаменаційній комісії кваліфікаційну роботу здобувача вищої освіти спеціальності 226 Фармація, промислова фармація Еррухі ЯССІН на тему: «Дослідження особливостей сучасного арабського фармацевтичного ринку».

Науковий керівник к. фарм. н., доцент кафедри СФ Любов ТЕРЕЩЕНКО.

Рецензент к. фарм. н., доцент кафедри ММЗЯФ Ірина БОНДАРЄВА.

**УХВАЛИЛИ:** Рекомендувати до захисту в Екзаменаційній комісії кваліфікаційну роботу здобувача вищої освіти Еррухі ЯССІН на тему: «Дослідження особливостей сучасного арабського фармацевтичного ринку».

Завідувачка каф. СФ, доцент

Аліна ВОЛКОВА

Секретар, доцент

Наталія ТЕТЕРИЧ

**НАЦІОНАЛЬНИЙ ФАРМАЦЕВТИЧНИЙ УНІВЕРСИТЕТ**

**ПОДАННЯ  
ГОЛОВІ ЕКЗАМЕНАЦІЙНОЇ КОМІСІЇ  
ЩОДО ЗАХИСТУ КВАЛІФІКАЦІЙНОЇ РОБОТИ**

Направляється здобувач вищої освіти Еррухі ЯССІН до захисту кваліфікаційної роботи за галуззю знань 22 Охорона здоров'я спеціальністю 226 Фармація, промислова фармація освітньої-професійної програми Фармація на тему: «Study of the features of the modern arab pharmaceutical market»

Кваліфікаційна робота і рецензія додаються.

Декан факультету \_\_\_\_\_ / Микола ГОЛІК /

**Висновок керівника кваліфікаційної роботи**

Здобувач вищої освіти Еррухі Яссін під час виконання кваліфікаційної роботи вивчив і проаналізував значний обсяг літератури та нормативно правових актів по темі. Проведений аналіз підтверджує актуальність досліджень і висуває необхідність їх проведення.

Таким чином, кваліфікаційна робота може бути рекомендована до офіційного захисту в Екзаменаційній комісії Національного фармацевтичного університету.

Керівник кваліфікаційної роботи \_\_\_\_\_ Любов ТЕРЕЩЕНКО

«08» травня 2025 р.

**Висновок кафедри про кваліфікаційну роботу**

Кваліфікаційну роботу розглянуто. Здобувач вищої освіти Еррухі ЯССІН допускається до захисту даної кваліфікаційної роботи в Екзаменаційній комісії.

Завідувачка кафедри  
соціальної фармації \_\_\_\_\_ Аліна ВОЛКОВА

«16» травня 2025 р.



Qualification work was defended

of Examination commission on

«       » June 2025

With the grade \_\_\_\_\_

Head of the State Examination commission,

DPharmSc, Professor

\_\_\_\_\_/Volodymyr YAKOVENKO/