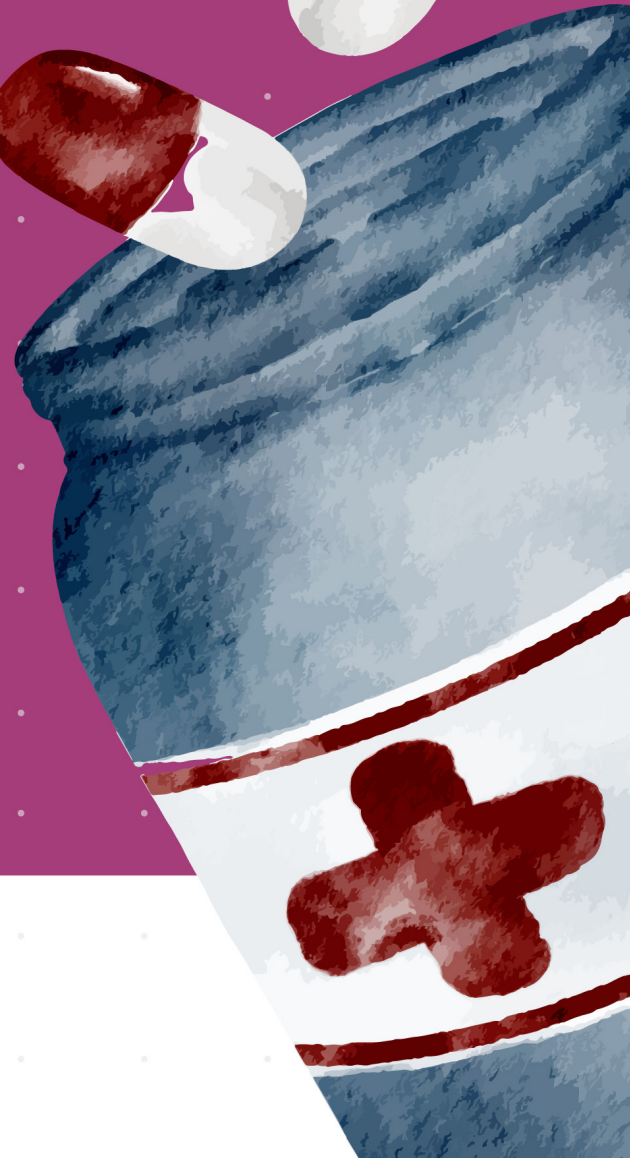




The Iraqi Pharmaceutical Industry:

Strengths, Weaknesses,
Opportunities and
Threats

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The Iraqi Pharmaceutical Industry: Strengths, Weaknesses, Opportunities and Threats

This report is a collective effort done by the contribution of various departments at KAPITA.

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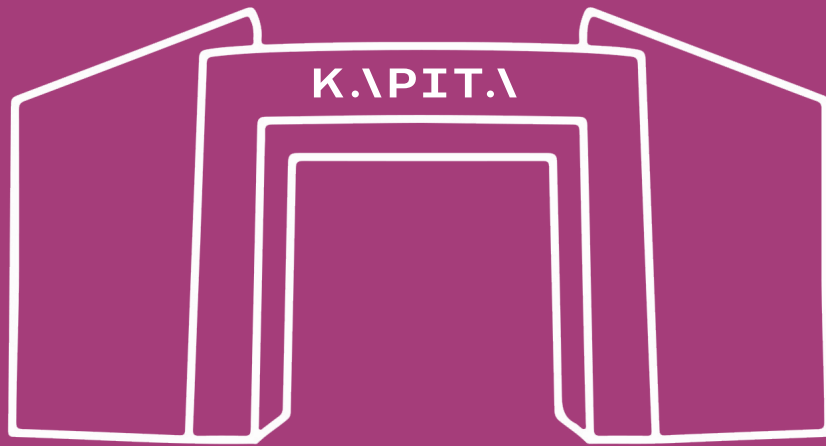


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Executive Summary

The pharmaceutical sector in Iraq has faced significant challenges, however, recent reforms and opportunities have created a more favorable environment for growth and development. This report aims to provide an analysis of the drug manufacturing industry in Iraq, examining the current state of the pharmaceutical sector, its opportunities and challenges, and potential for future growth. The report draws upon a range of sources, including government data, industry reports, and expert analysis, to provide valuable insights into the Iraqi pharmaceutical market, the highlights of which are as follows:

- **Reliance on Imports:** A significant health burden accompanies Iraq's growing population, making it necessary to support the drug manufacturing sector as most of Iraq's essential medicines, vaccines, and active pharmaceutical ingredients used for manufacturing are imported.
- **Uneven Spread of Pharmacists:** The increase in the number of pharmacists in Iraq has led to an increase in the number of pharmacies, but there is an uneven spread of pharmacists across the country. Duhok and Maysan have less than 2 pharmacists allocated to every 10,000 people while governorates in the Middle Euphrates region have up to 7 pharmacists per 10,000 people.
- **Iraq Lags Behind in Expertise and Capacity:** Iraq has a large number of pharmacists and pharmacy students, who are mostly allocated to public hospitals or private community pharmacies. Many pharmacists could contribute to the drug industry with the right governmental and private sector support, training, and development efforts.

- **Active Pharmaceutical Ingredients are Hard to Come by:** Iraq has access to natural resources that can be used in the production of pharmaceuticals, but no proper investment has ever taken advantage of those natural resources, therefore, active pharmaceutical ingredients take 4-6 months to be acquired.
- **The Government, Now and Then:** The government's lack of support has hampered the industry's growth, with many of the regulations introduced on private manufacturers during the 1990s still in place. Nevertheless, the new government is cooperating with private drug manufacturers to resolve many of the unnecessary regulations and help rejuvenate the sector.

This report shines a bright light on many aspects of the pharmaceutical sector, mainly the industrial part of the pharmaceutical industry. Iraqi manufacturers have been resilient through years of international sanctions, security struggles, shortage of expertise, and lack of governmental support, but many are still supplying the Iraqi market with excellent quality medicine. The conducted strengths, weaknesses, opportunities, and threats (SWOT) analysis provides an insight to this vital niche of manufacturing, one of significant importance to the wellbeing of Iraq as an economy.

It is our hope that this report, with the proper strategies and investments, may be used as a resource to contribute to the improvement of the healthcare system in the country by local and international pharmaceutical companies.

Overview of the Pharmaceutical Industry

History of the Pharmaceutical Industry

The pharmaceutical sector in Iraq has a long history dating back to 1920 when the first pharmaceutical manufacturer, Qatrat Alayn, was established. However, it was not until 1961, following the establishment of the industrial development law, that the private sector witnessed an increase in pharmaceutical factories, with only four out of the ten existing factories being licensed by the Ministry of Health (Wafiq, 2007).

The Soviet Union and Iraq signed an economic cooperation agreement in 1959, leading to the building of The State Company for Drugs Industry and Medical Appliances (SDI), commonly known as Samarra, at a cost of 618 million USD, which did not begin operations until 1970. The 1990s saw the government and private sector working together to manufacture pharmaceutical products, which led to an increase in the number of pharmaceutical factories in the country. As of 2005, there were 17 pharmaceutical manufacturers in Iraq employing 4,034 people (Wafiq, 2007).

Currently, in 2021, Iraq has a total of 23 national pharmaceutical manufacturers. Seven large pharmaceutical manufacturers, of which one is owned and one is partially owned by the government, while the remaining five are in the private sector (Central Statistical Organization, 2021). Two of the five private sector manufacturers are located in the Kurdistan region (Central Statistical Organization, 2022). The medium-sized pharmaceutical enterprises are only three in total, one of which is located in the Kurdistan region. The remaining 13 companies are considered small pharmaceutical manufacturers .

National drug manufacturers only produce finished products, all active ingredients are imported from outside Iraq. There are no facilities in Iraq equipped with advanced technologies required for the production of biological medicine (aka biopharmaceuticals) or World Health Organization (WHO) prequalified products, which are pharmaceutical products that have been assessed by the WHO and were found to be acceptable for the treatment of certain diseases and later procurement by UN agencies (Al-Kinani et al., 2020).

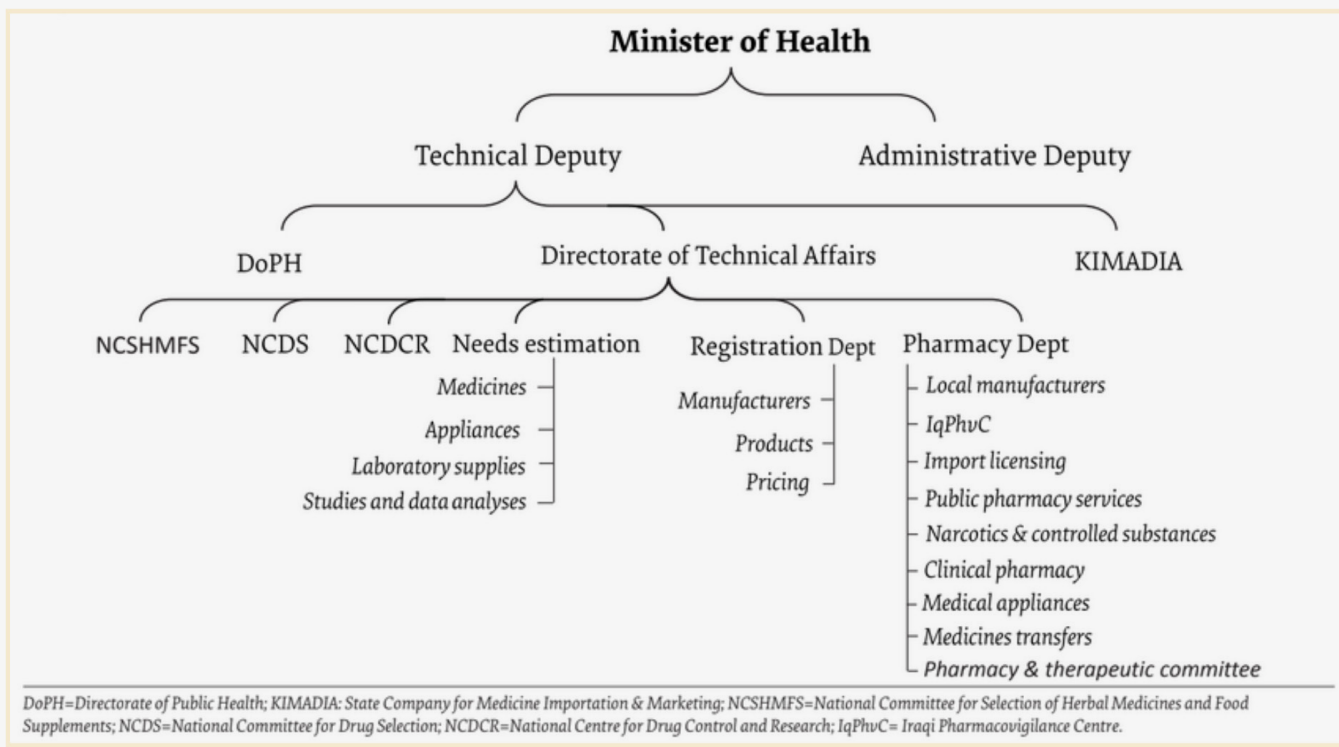
Hierarchy of Regulatory Bodies for Medicinal Products

The Iraqi Ministry of Health has two deputies, the Administrative Deputy and the Technical Deputy. The Administrative Deputy is responsible for overseeing the administrative affairs of the Ministry, including human resources, financial management, and general administration. The Technical Deputy, on the other hand, oversees the technical aspects of the Ministry, including the development of health policies, the provision of health services, and the regulation of healthcare products and facilities (Al-Jumaili, 2020).

The State Company for Drugs and Medical Appliances, also known as KIMADIA, is a state-owned company responsible for the procurement and distribution of medicines, medical supplies, and equipment for the public healthcare system. It is in charge of importing, purchasing, storing, and distributing essential medicines, vaccines, and medical equipment on the essential medicines list (EML), as well as managing the country's medical warehouses and

transportation. National pharmaceutical manufacturers contributed 47.8% of the total volume of KIMADIA's public sector medicine contracts in 2019 (Al-Jumaili, 2020). In the Kurdistan region, medicine procurement is done via KIMADIA which delivers medicine to public health care and directly via the local health directorates.

Medicine procurement for the private sector is different from that of the public sector. National drug manufacturers, registered drug wholesalers, and scientific bureaus supply medicines directly to the private sector; mainly private tertiary care facilities and community pharmacies. In the public sector, medicine is provided free of charge, as for the private sector, drug pricing is determined by the registration department at the directorate technical affairs (DTA), while the inspection directorate at the MoH and Iraqi Pharmacists Syndicate maintain a monitoring of drug prices (A. A. Al-Jumaili et al., 2021).

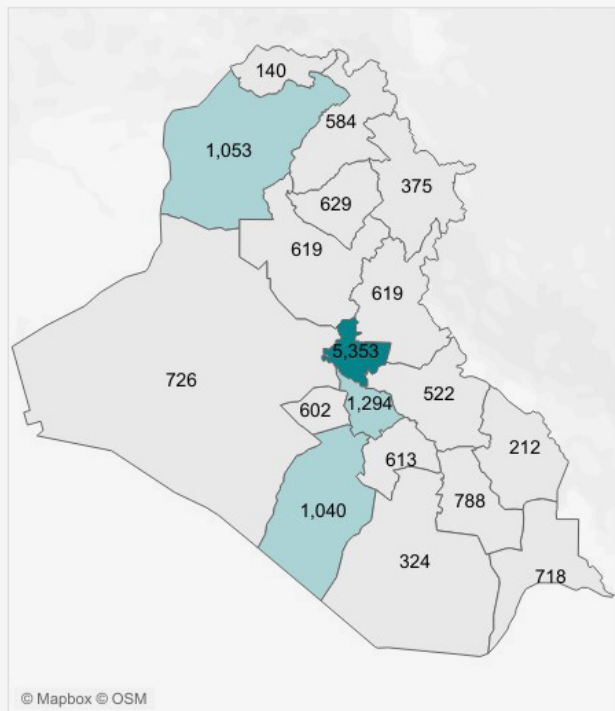


Pharmaceutical Sector Statistics

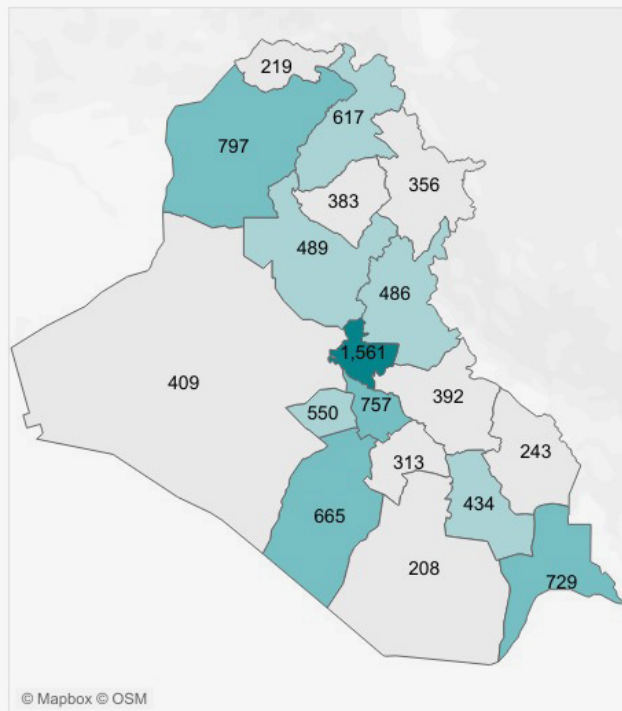
The number of pharmacists has increased substantially in Iraq, which has led to the subsequent increase in the number of pharmacies. The distribution in the graphs suggests the uneven spread of pharmacists, with some governorates having significantly more pharmacists than others. This could be due to a variety of factors like population density and the economic development of the governorate. Baghdad has the largest total number of pharmacists and pharmacies in Iraq, with more than 5,000 pharmacists and 1,500 pharmacies. Except for Baghdad,

Babil, Najaf, and Ninewa are the only governorates that enlist more than 1,000 pharmacists. The lowest number of registered pharmacists are in Maysan with 212 pharmacists and Duhok with 140 pharmacists. Needless to mention, these governorates have a lower number of registered pharmacies as well, with Duhok having only 219 pharmacies, which is second to Al-Muthanna which only has 208 registered pharmacies (Ministry of Health, 2021).

Total Number of Pharmacists



Total Number of Pharmacies



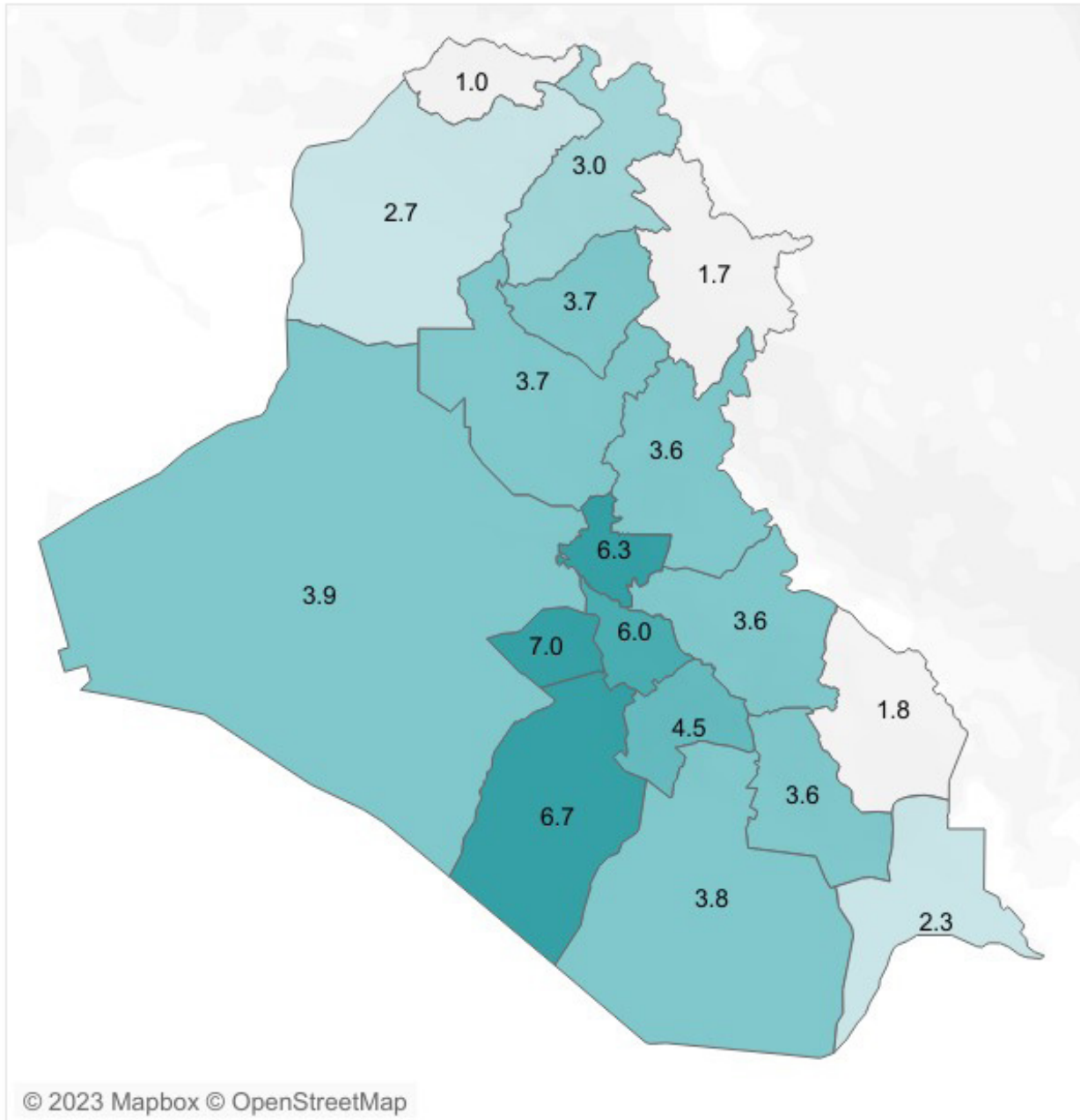
140 5,353 208 1,561

Source: Annual Statistical Report, Ministry of Health, 2020. Copyrights: KAPITA Business Hub, 2023.

The total number of pharmacists and pharmacies is not indicative of how well the residents of these governorates are served. Duhok and Maysan are still on the lower end of the spectrum, they are joined by Sulaimaniyah with less than 2 pharmacists tending to every 10,000 citizens. Karbala, Najaf, and Babil, which are in the middle Euphrates region, have at least 6 pharmacists per 10,000 inhabitants,

and that is around the same number of pharmacists allocated to 10 thousand people in the capital city of Baghdad (Ministry of Health, 2021).

Ratio of Pharmacists per 10,000 Individuals

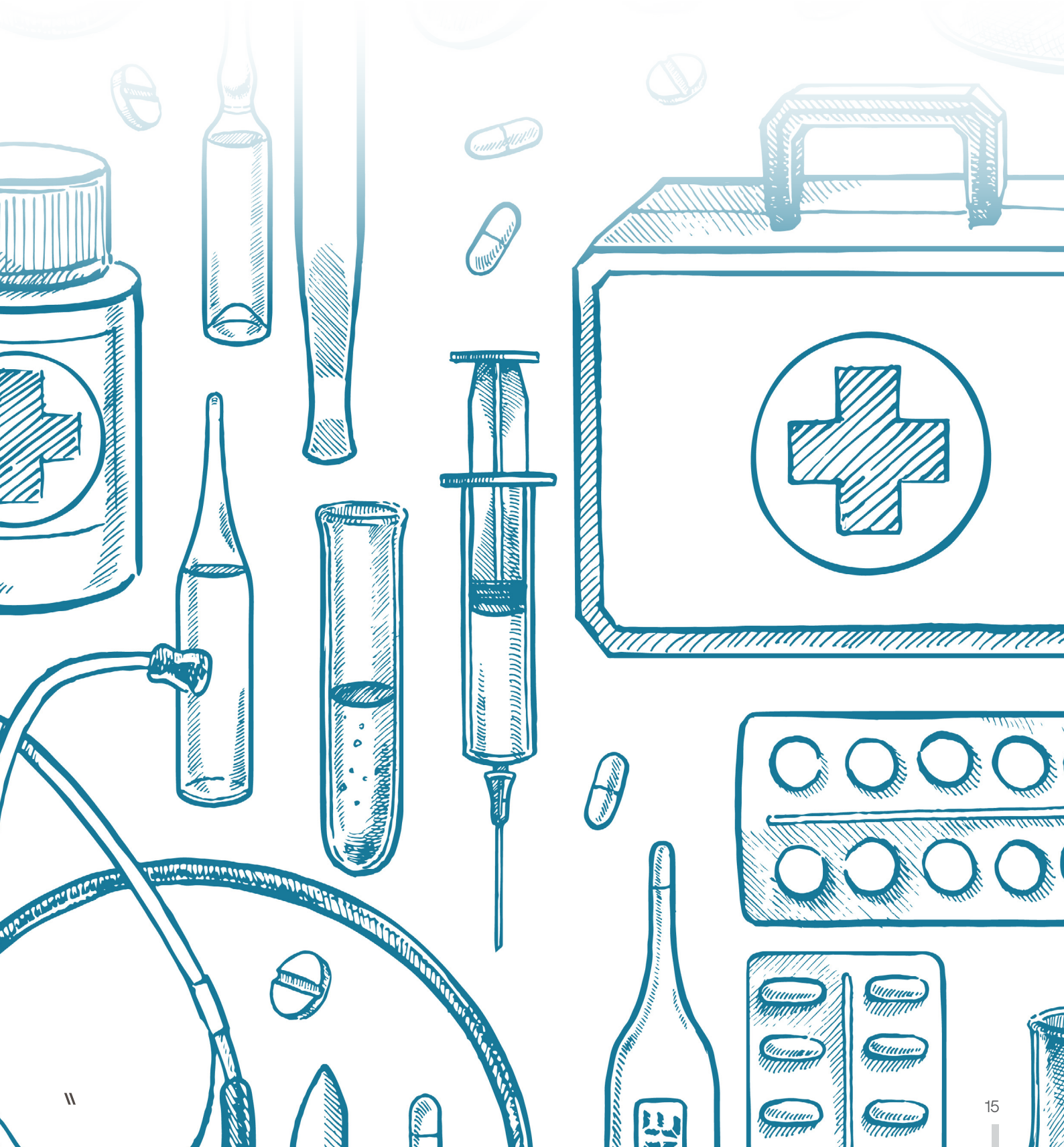


Source: Annual Statistical Report, Ministry of Health, 2020.
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SWOT Analysis of the Iraqi Drug Industry

The pharmaceutical industry is among the most strictly regulated industries worldwide, as it is bound by numerous laws and regulations that govern various stages of its operations, ranging from running pharmacies to factories. The SWOT analysis on the Iraqi pharmaceutical industry involved a comprehensive

desk review of published literature and interviews with key figures in the pharmaceutical industry, such as manufacturers, distributors, regulators, and healthcare providers. These interviews will be aimed at gaining valuable insights into the industry's current status, emerging trends, and future outlook.



Strengths

Iraq's population has been on a steady increase over the years, with the latest figures for 2020 indicating that the total number of births inside and outside the country was 1,022,227. The country has a relatively young population, with the median age of the population being 20.8 years. Additionally, the life expectancy at birth for both genders is 71.5 years. However, the country still faces a significant health burden, with ischemic heart disease, cerebrovascular diseases, hypertension, diabetes mellitus, malignant tumors, and renal failure being amongst the top 10 causes of deaths in Iraq (Ministry of Health, 2021). There will be an increased demand for medication with the growing population and for the purpose of sustaining the country's medical security the drug manufacturing sector must be supported.

Currently there are 23 national drug manufacturers, many of whom have Good Manufacturing Practice (GMP) and ISO certificates, which are certificates acquired by many to verify the quality of their products, allowing them the capacity to export their products to other countries. National manufacturers are also making strides in production, modernizing their machinery to produce better end products, improving their packaging, for example, SDI started packaging their syrups in proper cartons with educational leaflets instead of selling them bare with only a sticker attached. National manufacturers are also venturing on manufacturing new drugs like hormonal and anticancer medication.

“The Ministry of Industry inspects the manufacturing process and the Ministry of Health evaluates the licensing and produced drugs. There are about 5-6 factories that have good manufacturing practice (GMP) certificates as well as ISO certificates.”

The public's interest in the industry mirrors the significant number of pharmacy students graduating each year. According to the 2019 statistics by the Ministry of Higher Education and Scientific Research, there are 44 public and private institutions tending to 7,929 pharmacy students (Ramadani et al., 2021). The country boasts a large number of pharmacists with a growing number of pharmacy students, approximately 35,000, who could contribute to the drug industry with the right support and training from private and public manufacturers.

Iraq's natural resources present an untapped potential for the pharmaceutical industry. The country has access to a wide range of natural resources, including minerals and plant-based materials that can be used in the production of pharmaceuticals (Al-Douri, 2000). They have been used extensively in home remedies and folk medicine, most of which remain to be studied. Active ingredients from these plants could be extracted and used in drug manufacturing and development, subsequently helping in the growth of the local industry and providing opportunities for innovation and research.

Weaknesses

Iraq's pharmaceutical industry currently lags behind neighboring countries, some of the main causes of such a lag are due to insufficient human capacity skills, lack of research and development efforts, and hesitant investments in the sector. Despite the 35,000 pharmacists registered in the Iraqi pharmacy syndicate, experts in drug manufacturing are a rarity as there are not many pharmacists venturing to practice industrial pharmacy. During the 1980s, newly graduated pharmacists were scheduled to have training in public sector drug manufacturers for the duration of 4 months, they would interact with Russian and Arab professionals working in the factory, gaining knowledge and insight to the drug manufacturing process. However, that system of practice ceased after 2003, mainly for security reasons as territories suffered many misfortunate events, last of which was the ISIS invasion which destroyed 2 drug factories in Ninewa.

“There should be laws and regulations that support the recruitment of pharmacists into the drug manufacturing industry. In 1980, fresh graduates were subjected to a postgraduate training program; 4 months in pharmacies, 4 months in hospital laboratories, and 4 months in SDI. Pharmacists used to gain knowledge working in these factories, there were also Arab and Russian experts working in SDI at the time. After 2003, this stopped, and at the moment, SDI has only 1 pharmacist working in the factory, as most of them fled after 2003.”

The government's lack of support further hampered the industry's growth. Prior to the sanctions imposed during the 1990s, public drug manufacturers were the only supplier of drugs for the Ministry of Health, and whatever drug Iraq could not manufacture was imported via KIMADIA. This caused the demise of private pharmaceutical companies until the need for them was clear during the 1990s, mainly to overcome the shortage of medicine due to the imposed sanctions. However, many of the regulations introduced on private manufacturers during that period of time are still active till this day.

The government oversees all activities and orders done by the manufacturers, all of which are paperwork still with many governmental entities and units to follow up with. The average order of active ingredients required to manufacture a drug takes as much as 4-6 months from the initial date of request to the date of arrival at the factory. The regulatory environment in Iraq is not well-developed, and there are gaps in the system that allow for the proliferation of counterfeit and substandard medicines. This undermines public trust in the industry and can have serious health consequences.

Opportunities

The Iraqi government has been working towards supporting national drug manufacturers, the current prime minister and minister of health have been actively working on easing custom tariffs and revising regulations related to the purchasing and procurement process for machinery and active pharmaceutical ingredients. Manufacturers working within the Kurdistan Region of Iraq have modernized regulations, or at times lack restricting regulations, allowing them room to function better than their counterparts working in central Iraq.

“At the time being, the Prime Minister and Minister of Health are actively seeking to support the public and private drug manufacturing industry, by trying to ease custom tariffs on active pharmaceutical ingredients, lowering bank rates on loans, and offering revisions of the steps of purchasing machinery and active ingredients for the drug manufacturing process.”

The increasing population is an added burden to the Iraqi healthcare system, which is expanding slowly to meet the needs of the populace, this growth needs to be accompanied by an equivalent growth in the drug manufacturing sector.

During the peak of SDI, drugs produced were exported to neighboring countries and western Europe. There is great potential for Iraqi-manufactured drugs to be exported to countries in the MENA region, ultimately leading to increased revenue and growth. However, proper importation of drugs cannot happen unless the needs within the country are met and KIMADIA limits its need for imported drugs.

“There is still trust in the national manufacturers, SDI are improving in terms of production, their packaging has improved.”

SDI was established as an international cooperative alliance between Iraq and the Soviet Union in 1965. This cooperation is considered a success story of a collaborative effort to establish an institution that was considered the best, largest, and most advanced in the region at the time. Future collaborations with international companies to access new markets, technologies, and expertise could have similar success stories, eventually leading to new product development, improved efficiency, and increased growth and revenue for the industry.

Threats

The dependence on imported drugs and lack of finance for drug development research leaves Iraqi manufacturers unable to compete with foreign companies in the global market. The drug manufacturing business requires many resources, frequent updates to technologies used, and great effort in marketing and distribution capabilities, all of which are lacking at the time being for national drug manufacturers. The lack of self-sufficiency in pharmaceuticals in Iraq makes room for international companies to compete for their share in the Iraqi market, and unless national manufacturers receive imperative support from the government to achieve self-sufficiency, importing Iraqi medicine will remain a far fetched challenge.

Drug manufacturers in Iraq have struggled with corruption as corrupt officials usually demand bribes or kickbacks in exchange for allowing active ingredients to enter the country or allowing manufacturers to use proper materials or equipment, further compromising the quality of the medications. Other threats related to the situation of Iraq as a country include economic instability and copyright infringement. These threats have

discouraged many from entering the drug manufacturing industry, establishments like pharmaceutical factories are considered very risky in terms of the capital investment considered, and the lack of economic stability and simple assurances like copyright protection are major deterrents for investments in the field.

“There are many illegal ways and methods to get medicine into Iraq, for example getting them into central Iraq through the KRG borders to avoid paying anything extra in bribes at the central Iraq borders.”

National manufacturers struggle to attract pharmacists to join them in the drug manufacturing business, as they may not offer sufficient salaries. Freshly graduated pharmacists are usually employed by the public sector and often work in community pharmacies, earning significantly more than they would if hired at a pharmaceutical factory. This has resulted in a severe shortage of skilled workers knowledgeable in drug manufacturing and industrial pharmacy.

Startups in the Pharmaceutical Sector

Mercato

Mercato is a B2B business platform that is based in Iraq and released in 2020. The company was established with the aim of digitizing the traditional Iraqi market by connecting pharmacists and pharmaceutical bureaus and warehouses from all over the country. Mercato provides a wide range of services, including a marketplace for sellers, logistics and swift delivery solutions, with the ease of accompanying online payment platform. The company's platform allows sellers to post their products online, with the description, the amount available in stock, and the price. Mercato allowed sellers to reach a wider audience, streamline their operations, and a chance for pharmacies to get the best deal for their business.

Metapharma

MetaPharma is a B2B platform founded in 2016 that provides pharmaceutical wholesale and logistics services. The platform is designed to offer pharmacies a one-stop-shop for all their supply needs at the best prices available. They also provide financing for pharmaceutical volume purchases and timely delivery of orders. MetaPharma enables wholesalers to accurately identify demand and adjust prices and inventories accordingly. The platform also promises to settle all sales orders from their warehouses. MetaPharma was developed by a team of Iraqi entrepreneurs and expats with experience in developing business-critical solutions. Iraqi financial institutions, logistics companies, and pharmaceutical sector companies are some of the initial investors.

Wonder Beauties

Wonder Beauties is an Iraqi e-commerce platform that was founded in 2022. It initially started with selling beauty products but later specialized in selling only hair and skin care products. The company prides itself on offering valid medical advice from pharmacists, with a team that has grown from 3 to 30 over time. Their emphasis on medical advice has led to a high satisfaction rate from customers and many successful cases with patients who suffer from various skin conditions.



Conclusion and Recommendations

In conclusion, Iraq's pharmaceutical sector has great potential for growth and development since the sector itself is directly involved in the changing healthcare scene. The pharmaceutical sector could have a significant contribution if these recommendations are implemented:

1. Improve human capacity skills by introducing training programs for pharmacists to practice industrial pharmacy, collaborating with international companies to provide private and public manufacturers with the necessary support and training.
2. Increase research and development efforts in the pharmaceutical sector by funding research institutions and universities and financing them with the necessary resources and technologies.
3. Ease customs tariffs and revise regulations related to the purchasing and procurement process for machinery and active pharmaceutical ingredients to support national drug manufacturers.
4. Address the regulatory gaps in the system that allow for the proliferation of counterfeit and substandard medicines.
5. Incentivise Iraqi-manufacturers to gain GMP certificates to allow them export to countries in the MENA region and beyond, thus increasing their revenue and growth.
6. Increase governmental support and investment by offering incentives to companies willing to invest in the pharmaceutical sector.
7. Encourage collaboration of the Iraqi pharmaceutical sector with international companies and organizations to access new markets, gain technical assistance, share best practices and technologies, and training of experts and healthcare professionals.
8. Provide local manufacturers with subsidies and technical assistance to help them produce quality drugs, thus creating jobs for the pharmacists and pharmacy technicians oversaturating hospitals, healthcare centers, and community pharmacies across Iraq.
9. Establish a new regulatory body to oversee the drug manufacturers, their operations, and the procurement process of active ingredients. This regulatory body should ensure that the products meet quality standards before they are released into the market, monitor the pricing of the products, and speed up the process of procurement for the manufacturers.
10. Strengthen intellectual property laws in Iraq to protect the rights of pharmaceutical companies investing in research and development.

Overall, the pharmaceutical sector in Iraq has the potential to contribute significantly to the country's medical security, generate revenue, and support economic growth. However, concerted efforts and support from the government, private sector, and international community are needed to realize this potential.

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About KAPITA Business Hub

KAPITA is a private sector development company that aims to empower small and medium-sized enterprises (SMEs) through investment, research, incubation/acceleration, and market development programs.

Our Services

- **Acceleration and Incubation Programs**

Through our partnerships with global and local accelerators and incubators, we provide startups access to a wide range of resources and support services, including mentorship, funding, and networking opportunities.

- **Investment and fundraising**

Our extensive network and deep expertise in the local market enables us to help investors identify high-potential startups and companies, facilitating meaningful connections with entrepreneurs in Iraq.

- **Research and professional services**

With a deep understanding of the Iraqi market and its unique challenges, we offer customized solutions and insights to help businesses succeed in today's competitive environment.

