THE MOROCCAN PHARMACEUTICAL INDUSTRY: NUMBERS AND FACTS Anas Ladid, Yassine Houssni Scientific supervisors: Kravchenko V.M., Seniuk I.V. National University of Pharmacy, Kharkiv, Ukraine

Introduction. After phosphates, the Moroccan pharmaceutical industry constitutes the second largest chemical activity in Morocco and occupies the second place on the African continent. This industry has a great potential for development thanks to its strong assets. 50 years of experience. Certified companies producing to European and/or American quality standards. A production capacity of 350 million units in one shift (8-hour production session). The adoption of the basic medical coverage code setting up the Compulsory Health Insurance (AMO). The adoption of a new medicines and pharmacy code providing for the liberalization of the share capital of pharmaceutical companies. Subsidiaries of multinationals that do not have a local production site. Mixed companies that represent subsidiaries of multinationals while manufacturing their own medicines. Moroccan companies manufacturing their own range of generic medicines.

The aim of the study. To provide an analysis of the Moroccan pharmaceutical industry and the potential for further development of the industry in the international pharmaceutical manufacturing and marketing arena.

Methods of research. Electronic resources have been used to demonstrate the establishment and development of the pharmaceutical industry in Morocco.

Main results. The Moroccan pharmaceutical industry is the 2nd largest in Africa, with a turnover of 13.7 billion dirhams (\$1.4 billion). The Moroccan pharmaceutical industry, with nearly 40 laboratories, 33 production sites, 50 distributors and more than 11.000 pharmacies, covers most of the domestic demand, that is, nearly 70%, and Morocco exports 7 to 8% of its production. It should be noted that the Moroccan pharmaceutical industry is classified as a zone of Europe by the WHO because of the quality of the products. The Moroccan pharmaceutical industry is a growth pole thanks to the technologies it has acquired, the know-how recognized by international organizations and the performance achieved both in terms of production volumes and the quality of drugs. In spite of everything, the trade balance of pharmaceutical products at the end of 2015 was – 3.9 billion dirhams [1, 2].

As of January 2022, Moroccan pharmaceutical laboratories are represented by Afric-Phar, Bottu, Cooper Pharma, Galenica, Genpharma, Iberma, Ipharma, Laprophan, Novapharm, Novopharma, Pharma 5, Institute of Pharmacy, Promopharm, Polymédic, Sothema, Steripharma, Zenith [1].

Whereas, the International Laboratories located in Morocco have representative offices of Alcon, Abbvie, Abbott, AstraZeneca, Bayer, Celgene, Eli Lilly, GlaxoSmithKline, Janssen, Leo Pharma, Merck, MSD, Novartis, Novo Nordisk, Pierre Fabre, Pfizer, Roche, Sanofi, Servier, Spimaco [3].

The Moroccan Pharmaceutical Companies (LEMM) is a professional association created in 2021, consisting of 19 Moroccan companies, subsidiaries of international pharmaceutical groups working in the field of research and development. LEMM's mission is to provide patients, healthcare professionals and all

healthcare providers with innovative healthcare solutions that meet the most stringent international standards for both serious diseases and public illnesses [4].

The Moroccan pharmaceutical industry is looking for a new market, especially in the Portuguese- and English-speaking countries of Africa, as well as in Vietnam, which could be a springboard to conquer the market of the 10 countries united in ASEAN [6]. Pharma 5 intends to establish a drug plant in Côte d'Ivoire [7], Cooper Pharma will do the same in that country and will build another plant in Rwanda [8].

Innovation in the pharmaceutical sector in Morocco. As for SSB 400, a generic of sofosbuvir, a miracle molecule against hepatitis C developed by the American firm Gilead and marketed by it under the brand name Sovaldi, chemists at the pharma 5 lab have succeeded in recreating this molecule and democratizing access to medical care. for this disease that was considered incurable. SSB 400 costs 13,500 dirhams for three outlets versus more than 400,000 dirhams in France or even more than 800,000 dirhams in the United States [9, 10].

Laprophan already has 5 patents for inventions. Among these 5 patents is Ixor, the only effervescent antireflux drug. "Laprophan's research laboratory is the only one able to develop an effervescent antacid while improving its therapeutic properties. In 2008, the lab received its first Innovation Award from the Ixor Research and Development Association. The product was then offered in an international competition organized by the World Intellectual Property Organization (WIPO) in Geneva. Antireflux oesophageal treatment won the first innovation award, beating Sanofi [11].

Conclusions. Morocco's pharmaceutical industry remains steadily at the forefront of the overall economy and holds great promise for promoting its own medicines on the global pharmaceutical market.

References

1. Moroccan Association of the Pharmaceutical Industry", at amip.ma.

2. http://www.leseco.ma/business/25491-maroc-innovation-sante-a-un-nou veau-president.html.

3. http://www.h24info.ma/maroc/lassociation-maroc-innovation-et-sante-ch ange-dappellation/38562.

4. "LEMM - Innovation and Health - The Medicines Industries in Morocco", The Medicines Industries in Morocco, at www.lemm.ma.

5. "Moroccan pharmaceutical companies are eyeing the Middle East market", La Vie éco.

6. Aziza Beloos, "Drug exports increased by 6% in 2015", at lavieeco.com.

7. "Pharma: Pharma 5 invests AED 100 million in Abidjan factory", at le360.ma.

8. "Morocco-Rwanda: Cooper Pharma to build pharmaceutical unit in Kigali", at le360.ma.

9. Fahd Iraqi, "Hepatitis C: Pharma 5, the Moroccan laboratory through which the miracle happened", at jeuneafrique.com.

10. "Sovaldi: why a hepatitis C drug can cost \in 705 in India and \in 41,000 in France", at huffingtonpost.fr.

11. "Laprofan develops new painkiller", at leconomiste.com.