Examining the developments in the pharmaceutical business and pharmaceutical management in France and Russia

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ABSTRACT

This comprehensive review aims to explore and analyse the techniques used by France and Russia for revolutionising a blooming pharma market. By analysing key practices, government regulations, market dynamics, and challenges faced, author has uncovered the changes, trends, and future prospects for pharmaceutical management in France and Russia. In this section, we will outline the purpose and scope of this document.

Keywords: Pharmaceutical management, clinical trials, pandemic, waste management, sustainable supply chain.

Introduction

"The safe and secure use of pharmaceutical drugs is ensured by the discipline of Pharmaceutical Management, which is taught in management courses and works in conjunction with the chemical and health sciences." The pharmaceutical management profession encompasses development, research, administration, and nursing.One of the core roles of a pharmacy management is to oversee the pharmacy staff and manage the people in order to maintain positive work relations and results *(Mohiuddin, A. 2020).*

It is usually the manager of a pharmacy who keeps all finances in order, including:

- Accounts
- Payments to suppliers
- Insurance payments
- Salaries and wages
- Daily proceeds

The function of pharmacy management encompasses a variety of duties and obligations. In larger pharmacies in particular, it can be challenging for one individual too versee each of

these domains; in these situations, a management group for pharmacies could be needed to carry out all responsibilities effectively *(Farrell, B. et.al, 2018).*

1. **Current Healthcare Landscape in France (2019-2020)**

Table 1: Current Healthcare Landscape in France (2019-2020)

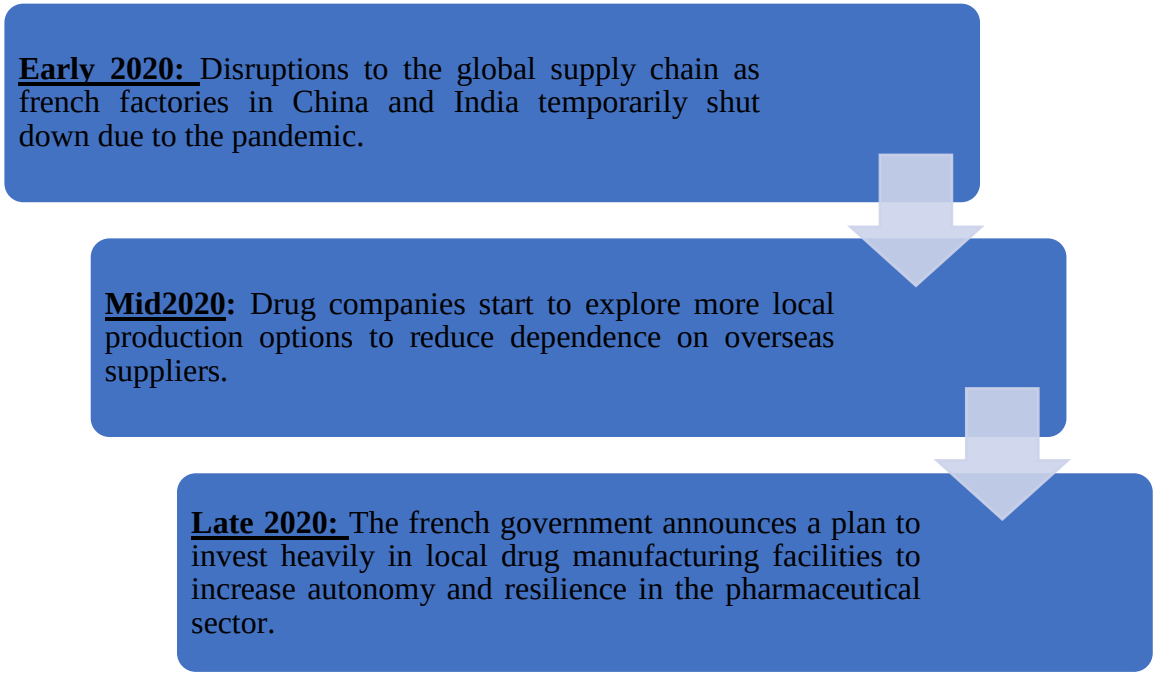
Hospitals	Heavily impacted by Coronavirus, with many overwhelmed and understaffed.
Pharmacies	Remained open throughout the pandemic but saw significant changes in supply chain and demand.
Health Ministry	Implemented new measures and regulations in response to the pandemic.

1.1 Effects of the pandemic on Pharmaceutical Management

- **Increased demand for certain drugs:** Medicines like hydroxychloroquine and azithromycin saw a surge in demand in the early days of the pandemic, leading to shortages and supply chain issues *(Nicola, M., et. al, 2020).*
- **Closure of clinical trials:** Many clinical trials were put on hold during the pandemic, leading to delays in the development of new drugs.

1.2 **Obstacles in the manufacture of drugs and it's supply chain:** The pandemic caused significant disruptions to the global drug supply chain, particularly due to reduced production capacity and issues with transporting medicines across borders *(Sawad AB, Turkistani F, 2021)*

1.3 Changes in drug production and supply chain during pandemic



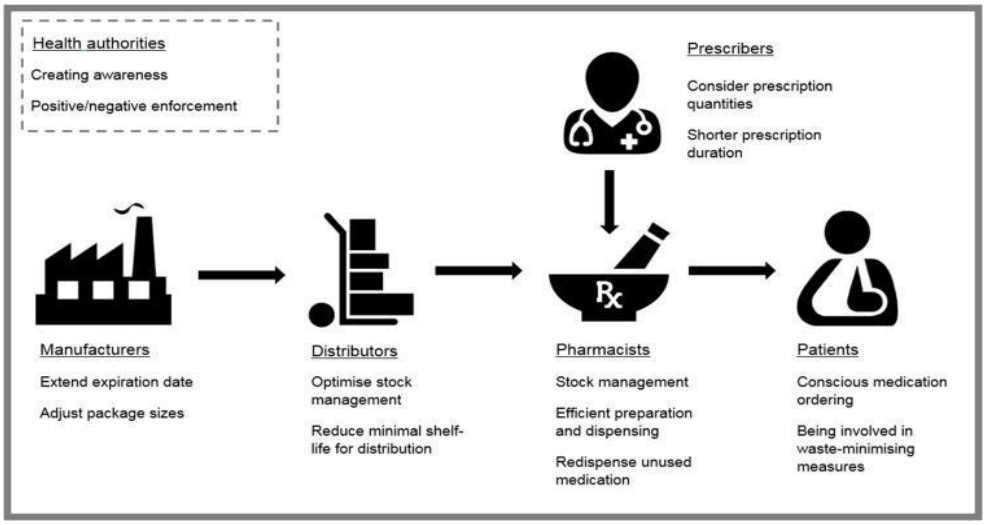
1. **Adaption of Waste-minimising techniques (2021)**

Medication waste pertains to any pharmaceutical product that is not fully utilized or remains unutilized within the supply and use chain *(West et al., 2015; World Health Organization, 2014)*. The prescription drug budget is under threat from the waste of potentially lucrative pharmaceutical, which causes losses of as much as $5.4 billion yearly in the US *("Law et al., 2015")*, over £300 million in the UK (*"Trueman et al., 2010"*), and at least €100 million in the Netherlands *(Bouvy et al., 2006*). Moreover, pharmaceutical pollution of the aquatic environment can impair its ecosystems *(Majumder et al., 2019*); additionally, it can pose a risk to human health due to partial removal by traditional drinking water plans *(Kaushik and Thomas, 2019; Kostich et al., 2013)*. As a result, the distribution and usage of medications need to be planned in a sustainable way in order to save both the environment and the healthcare budget.

2.1 Measures taken for waste minimising

A variety of tactics considered in the supply and usage of medication to minimize redundant medication, since pharmaceutical waste may occur at any stage of the pharma chain.

Fig. 1. Implementing strategies to reduce waste in order to attain a sustainable drug supply and usage.



Source: https://doi.org/10.1016/j.scp.2021.100400

2.1.2 Manufacturers

Medication production is the first step in the pharmaceutical supply chain. Medication waste throughout all following phases of the pharma logistical chain can be impacted by the way pharmaceutical manufacturers develop, produce, and distribute their products *(Smale, E. M. et. al, 2021).*

For instance, medication is more likely to expire before it reaches the patient if storage conditions are restricted. Since long-term storage testing is not necessary for a medication's authorization, many drugs are labelled with a shorter shelf life than its stability (*Diven et al., 2015*).

2.1.3 Distributors

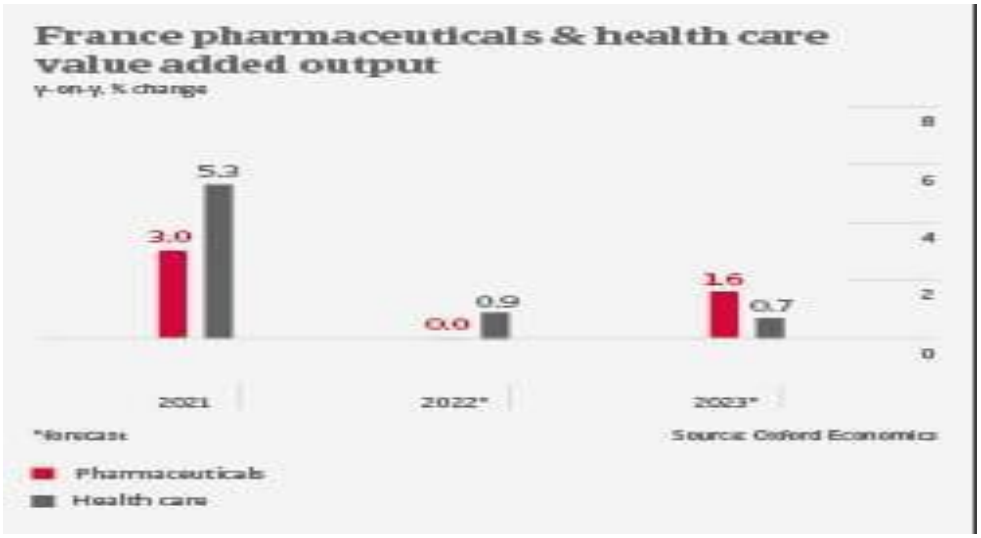
Distributors are responsible for stocking pharmacies with medications and storing them. medicine waste may arise from these procedures due to the medication's expiration. Warehouses manage their goods based on shelf-life requirements to prevent expiry during supply. According to estimates, warehouses in the France discard 4500 packets of generic medication every day. If the 12-month shelf-life requirement for supplying medication to pharmacies was reduced to 9 months, this figure might be reduced by 39% (*Soest-Segers et al., 2019*). Therefore, in order to reduce pharmaceutical waste the distributors must first limit at the warehouse level to present internal lifespan requirements.

2.1.4 Health Authorities

By raising awareness, offering recommendations for waste-minimization strategies, or encouraging partnerships and cooperation, waste reduction might be enforced by health officials. One important tactic to reduce prescription waste is education . For instance, ignorance of proper disposal methods is a major contributing factor to improper pharmaceutical disposal (Kinrys et al., 2018). As a result, training patients (*"Botelho, 2012; Maughan et al., 2016"*) and medical staff (*"Ikeda, 2014; Mosquera et al., 2014; Tisdall et al., 2019"*) has shown to be an effective strategy for ensuring appropriate pharmaceutical disposal.

2. Following the lines that delineate the market for expensive pharmaceuticals in France

Pharmaceutical producers can continue to make large profits since high pricing are now a necessary component of their business model (Froud and Sukhdev, 2006). Previous studies have looked into how these profit margins enable pharmaceutical companies to adopt a financialized business model that restructures clinical trials, intellectual property, biochemical compounds, and the pharmaceutical ecosystem in order to maximize profits (*"Dumit, 2012; Rajan, 2017, Lazonick et al., 2019; Bourgeron and Geiger, 2022"*). Pharmaceutical companies' ability to command high prices for their products is a fundamental component of these value-extraction strategies (*Roy, 2020*). However, some analyses suggest that a disparity between national governments and international medico firms could ultimately put universal access to healthcare at risk, even in high-income nations *(Tansey and Ainger, 2019; EPHA 2020*). Because of this, comprehension is vital.



Source: Health care analysis of France

3. RUSSIAN MARKET OVERVIEW

Russian market is rapidly dividing both domestic market and huge industries' interest in the country by foreign investor are being increasing divided in the Russian market. In a nation where market research was virtually has been all non-existence for the last two decades ago. The goal of domestic agencies is aimed for organization to work on establishing the new companies, businesses in Russia.

U.S. exporters should give the Russian Medical market some serious thought because of its immense potential. With an average capital expenditure of $160 per person on medical care in 2019, Russia ranked nineteen out of thirty-two economies in central and eastern Europe. In 2019, Russia sold $19.9 billion worth of medicines, which accounted for 22.6% of the country's health spending and 1.2% of GDP*(Sahoo, P. M., Rout, H. S.et.al.2023).*

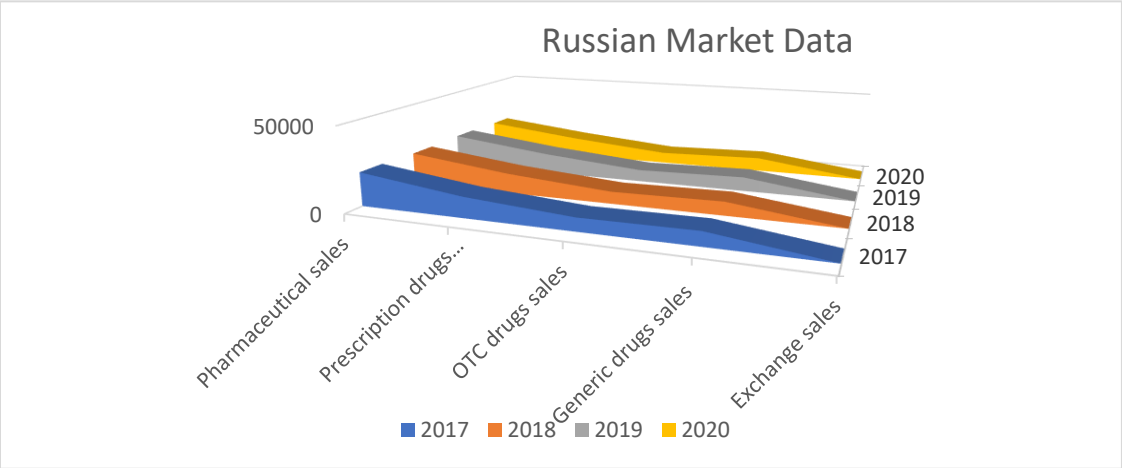
Prescription and over-the-counter medications make up the two segments of the Russian pharma market. Sales of prescription drugs have historically dominated the industry, and in 2019 sales of prescription drugs accounted for 63.3% of total revenues. Generic sales accounted for 68.3% of the total sales volume. Of this total, generic prescription sales made up 68.4% of Russia's sales in 2019.

Table 2: Russian Pharmaceutical Market Overview Data

	2017	2018	2019	2020
Pharmaceutical sales	20,088	19,268	19,858.5	19,253
Prescripted drugs sales	12,281	12,006	12,565	12,346
Otc drugs sales	7,807	7,258	7,294	6,907
Generic drugs sales	8,236	8,115	8,589	8,539
Exchange rates	58.5	60.4	64.7	71.0

Source: U.S. Commercial Service Guide Russia.

Fig.no.1:RussianPharmaceutical Market Data



Source: Russian Commercial Service Guide, U.S.

4.1 Factors that affect the Russia Pharmaceutical Market:

a. Demographic factors play important role in the growth of pharmaceutical market.
   - The market growth depends on the age of the population.
   - "The Russian government is focused on creating its pharmaceutical industry as outline in **its "Pharma 2020 strategy,"** which aims to reduce the reliance of the Russian economy on imported pharmaceuticals".

b. Despite the challenges the U.S companies face, the result of strategy is:
   - ✓ Lucrative prospects continue to exist, such as the transfer of licensing agreements to US producers of medicinal products.

- ✓ American producers offering medical supplies and packaging machinery.
- ✓ "The Ministry of Industry and Trade is developing the **"Pharma 2030 Strategy,"** which will be in persistence of the current **"Pharma Strategy""**.
- ✓ The Russian government's incentives and the population's inclination towards less expensive medications will propel the growth of the generic medicine sector.

4.2 The contemporary pharmaceutical sector in Russia: Consumer perceptions of online drug sales-

The remote retail sale of over-the-counter medications is now permitted in Russia.. Statistics show that as of April 2020, there was an 803% increase in customer demand for "online pharmacies". In the central region of Russia, the study was carried out in two phases utilizing a cross-sectional approach and a structured questionnaire:

1st stage -July to August 2020

2nd stage – February to march 2021

And the study obtained results using logical and statistical analysis, as well as qualitative and quantitative tools of sociological research.

People demand for the purchase of med-drug online will continue to expand because these kinds of sales have undeniable advantages.

- The opinions of consumers towards online shopping vary depending on the respondents' age group. Compared to poll respondents between the ages of 18 and 25, who made up 7.8% of the sample, 1.5 times as many respondents over 46 (12.1%) strongly oppose the distance selling of pharmaceuticals.*(Nelson, P. .et.al(1970).*
- After six months, none of the respondents (i.e., half of the consumers in the initial study) were adamantly against the online sale of prescription drugs.
- Over time, there was a four-fold decline in the proportion of respondents who deemed pharmaceutical counseling to be extremely important when buying medications online (10.9%). "The values of M (08.2020) = 3.66 (0.992); M (03. 2021) = 3.17 (0.981) t = 7.66 ($p <\sim 0.05$)".
- The biggest benefit of distance selling medications, according to consumers, is accessibility for those with disabilities (80.3%).

Employing the focus group technique, a "pilot study" was carried out to collect the data.

Table 3: Consumer perceptions regarding online sales of pharmaceuticals have evolved [%] across various age groups between August 2020 and March 2021.

Consumer attitudes	**18-25 years old**	**18-25 years old**	**26-45 years old**	**26-45 years old**	**46 or more years old**	**46 or more years old**
	08.2020	**03.2021**	**08.2020**	**03.2021**	**08.2020**	**03.2020**
Full Supportive	38.3	35.7	32.9	27.8	12.1	14.3
Rather, I support	25.2	42.9	22.8	38.9	24.2	42.9
Neutral	19.1	10.1	24.3	22.2	18.2	7.1
Rather, I do not support	9.6	11.3	14.3	11.1	33.4	35.7

Source: "BMC Health Services Research, I.M. Sechenov First Moscow State Medical University (Sechenov University), Moscow, Russian Federation, Department of Organization and Economics of Pharmacy" 30Apr 2022, 22(1):582, https://doi.org/10.1186/s12913-022-07991-7 PMID:35490211 PMCID: PMC9055368.

Table 4:Distribution of customer feedback on the benefits of online retail pharmaceutical sales [%].

Strengths of remote retailing of medicines.	**Opinion [%] of consumers.**
Saving money (prices are lower than in a traditional pharmacy)	36.1
ADA compliance for people with impairments	80.3
Possibility to order a medicine at any time and place	77.5
Saves time (no time-consuming trip to the pharmacy)	76.6

Protection against pandemic	74.5
Ability to self-identify the availability of necessary medicines	60.6
Possibility of placing several goods orders in one location	53.7
The aptitude to select the appropriate medication from a variety of goods	40.4

Source: "The Department of Organization and Economics of Pharmacy is located in the First Moscow State Medical University (Sechenov University), Moscow, Russian Federation BMC Research on Health Services, "30 Apr 2022, 22(1):582. https://doi.org/10.1186/s12913-022-07991-7 PMID: 35490211 PMCID: PMC9055368.

4.3 Regulatory issues on the online sales of OTC drugs

In March 2020, presidential Decree No. 187 "On Retail Trade in Drugs for Medical Use" authorized the online sales of OTC drugs. Online drug sales are now included in the list of operations that are allowed by the Federal Law "On the Circulation of Drugs" 61-fz, subject to licensing, as of April 2020.

Government Resolution No. 697, which describes a thorough procedure for online sales, was passed on May 16, 2020.. These sales of prescription prescriptions and medications containing more than 25.0% ethanol are prohibited and probably won't be allowed in coming future.*(Forman, R.et.al.2021).*

Thirty-six pharmacy chains have already received unique licenses for domestic internet sales in Russia by June 2020. License holders must full fill certain requirements., such as:

a. possessing a minimum of one year's worth of pharmaceutical license and an earlier log of the actions;
b. possessing a minimum of ten pharmacy locations throughout Russia;
c. keeping up a mobile application or website that lets customers choose from a range of payment options;
d. Cold storage capabilities, either through in-house or contracted delivery services; and
e. The ability to pay for items at the point of service via a mobile or electronic payment system.

The monitoring system, which was introduced for all medications in July 2020, requires pharmacies to provide data regarding both offline and online drug sales.

Online sales reportedly saw their peak demand in May–August 2020, and then a fall following the easing of quarantine restrictions in June.

However, there are currently no complete statistics about internet over-the-counter sales. Nielsen reports that in the spring of 2020, IPSOS reported that 48.0% of Russians chose to buy over-the-counter drugs online., just 18% of Russian consumers made use of online services. varying percentages for online sales, from 8% to 31%, are provided by other sources. It appears that from spring 2020, logistics have improved, making same-day delivery and cheaper online shopping than offline. Free delivery is a perk offered by some licensed pharmacies, including Eapteka, for any order over 2,000 rubles (about $25 USD).

4. PHARMACEUTICAL LOGISTIC MANAGEMENT IN RUSSIA

Pharmaceutical logistic management is a critical component of the healthcare industry, ensuring that medicines and medical supplies are delivered to patients in a timely and efficient manner. In modern Russia, the pharmaceutical logistic management has undergone significant changes in recent years, with a focus on improving efficiency and reducing costs. Pharmaceutical logistic management in modern Russia has undergone significant changes in recent years, with a focus on improving efficiency and reducing costs. The industry has seen a shift towards more centralized distribution centers and increased use of technology to track and manage inventory*(.Bodkhe, U.et,al,2020)*

5.1 Challenges

- Lack of infrastructure and technology to support efficient logistics management.
- Limited access to funding and resources for implementing sustainable logistics practices.
- Complex regulatory environment and compliance requirements.

5.2 Opportunities

- Increasing demand for pharmaceutical products and services in Russia presents opportunities for growth and innovation in logistics management.
- Government initiatives and investments in infrastructure and technology can support the development of sustainable logistics practices.

- Collaboration with international partners and organizations can provide access to best practices and resources for implementing sustainable logistics management.

5.3 Future Outlook

The pharmaceutical logistic management industry in modern Russia is expected to continue to evolve in the coming years, with a focus on further improving efficiency and reducing costs. There may also be increased investment in technology and sustainability initiatives to meet the changing needs of the industry.

The adoption of new technologies and innovations is expected to continue in the pharmaceutical logistic management in Russia. Some of the key areas of focus for future development include:

- Improved integration of electronic health records and medication management systems, which will enhance patient care and reduce errors.
- Increased use of artificial intelligence and machine learning to improve medication tracking and reduce waste.
- Expansion of e-commerce platforms for medication sales, which will improve access and convenience for patients.

5.4 Role of Technology and Innovation

Technology and innovation have played a significant role in modernizing the pharmaceutical logistic management in Russia. The adoption of new technologies has led to improved efficiency, reduced costs, and enhanced patient outcomes. Some of the key technologies and innovations that have been adopted include:

- ✓ Automated warehousing and inventory management systems, which have improved accuracy and reduced errors in medication tracking.
- ✓ Real-time tracking and monitoring of medication shipments, which has improved visibility and reduced the risk of delays or lost shipments.
- ✓ Electronic prescribing and dispensing systems, which have improved patient safety and reduced errors in medication administration.

5. Conclusion

Pharmaceutical management plays a crucial part in financial plan, placement and decision-making, making it a vital sector in the pharmaceutical and medical production and distribution industry. There are many twists and turn occur in last few years of pharma industry whether in the form of covid-19 pandemic or waste minimising the pharma management plays very crucial role. Both the countries adapted various techniques or ideologies to overcome these situations and lead their pharma or medical facilities in market run. (https://health.economictimes.indiatimes.com/)

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