



## Impact of disruptions in the pharmaceutical industry – how to build more resilient sales teams

Katarina Toković<sup>a\*</sup>

<sup>a</sup> Magriž, Zagreb

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### Abstract

*The pharmaceutical industry has a central role in the global healthcare system, continually striving to meet the demands of patients, regulatory requirements, and market dynamics. With this role, the pharmaceutical industry is sensitive to disruptions, which can emerge from numerous sources: supply chain vulnerabilities, changes in regulatory demands, technological advancements, and global health crises. This article examines the consequences of disruptions within this sector and their extensive impact on sales. It surveys the fluctuation of sales volumes and revenues of the industry during the last disruption period from 2020 to 2023, especially in Croatia and the European Union. The decision-making processes in pharmaceutical sales management in the observed period had different challenges: the regulatory responses to a crisis, ethical dilemmas, and the need to preserve workplaces. Furthermore, this research explores principal strategies and ideas for building resilience for sales teams in the future.*

**Keywords:** pharmaceutical industry, disruptions, resilience, sales teams

### 1. Introduction

The global pharmaceutical industry has significantly changed due to various disruptions during the pandemic, especially in the functioning of distribution chains, the availability of medicines, and the marketing and sales activities of professionals in sales. The European Union and Croatia suffered from the same disruptions, causing medicine shortages all over the continent.


Supply chains were too long and broken because of raw material shortages, disruption in transport lines, and logistics problems during the COVID-19 pandemic, which was the final indicator of the weaknesses in pharmaceutical supply chains. On top of this logistic problem, there were significant regulatory changes and country closures due to the uncertainty of the global healthcare challenge. Everything led to the unique crises that captured the globe in not grateful position. Governments were making decisions according to the World Healthcare Organization (WHO) and the current situation in their countries. Countries that had national production had the advantage of supplying their hospitals and pharmacies with medicines, medical protective equipment, and medicinal products.

Technological innovation in the pharmaceutical industry takes hold across the development pipeline, the breakthroughs in patient care, multi-channel marketing, and finally mobile apps to treat illness in the form of FDA-approved prescription digital therapeutics (DTx) (Global Trends in R&D 2023 Activity, productivity, and enablers, 2023, p. 3). The implementation of Artificial Intelligence and Machine Learning in the healthcare system led to increased awareness about the usage of personal health information, patient privacy, and data security, but also of ownership and custody of the data (The Global Use of Medicine in 2019 and Outlook to 2023, 2019, p. 30).

The vulnerability of the global healthcare system was very visible during the pandemic, which led to the need to develop strategies for making sales teams more resilient. The focus in the pharmaceutical industry is shifting from COVID-19, and sales management demands different approaches and strategies in order to build more resilient sales teams.

\*Corresponding author

E-mail address: [katarina.tokovic01@gmail.com](mailto:katarina.tokovic01@gmail.com)

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## 2. Literature review

The pharmaceutical sector is susceptible to disruptions like any other industry, but what sets it apart from others is the social component of healthcare and the importance of medicine availability. Such disruptions therefore have a different impact on humanity because anyone can find themselves in a situation where they are at risk and lack access to the healthcare system and/or necessary medications for the treatment. Climate change has recently significantly threatened the continuous medical supply on a global level. The pandemic has highlighted various weaknesses in pharmaceutical companies, from distant manufacturing sites to supply shortages and a lack of readiness to operate under changed conditions. Different countries have implemented various measures to cope with shortages of medications, medical protective equipment, and disinfectants. The European Union has adopted an entirely new pharmaceutical strategy for its member states to strengthen European healthcare (Pharmaceutical Strategy for Europe, 2021). In Croatia, as a central authority, the Agency for Medicinal Products and Medical Devices has an organized database showing that every moment there is a shortage of 350 to 400 medicines. They developed the project together with the Ministry of Health aiming to predict shortages in the Croatian pharmaceutical market (Hub, 2021).

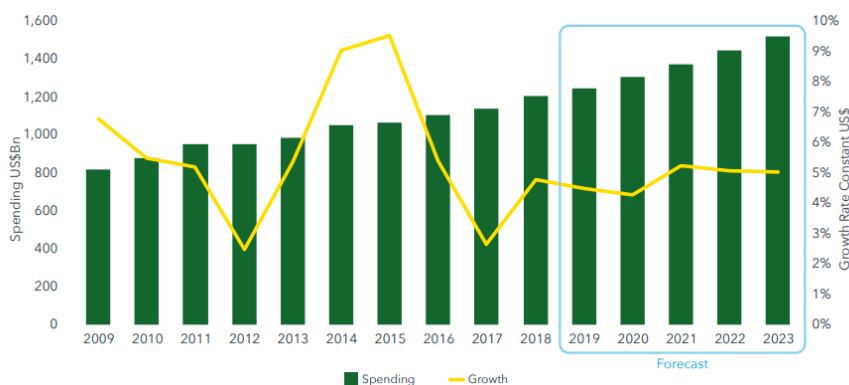
The pandemic has had a widespread impact on healthcare systems around the world. Many non-urgent medical procedures and screenings were postponed or canceled to redirect resources toward COVID-19 care. This delay in routine healthcare has led to the potential for later-stage diagnoses of various diseases, especially cancer (Balfour, 2021). Similarly, the stress as a consequence of the pandemic may have contributed to the aggravation of autoimmune conditions. Global medicine supply chains suffered after temporary manufacturing shutdowns, especially considering the high concentration of production of active pharmaceutical ingredients in Asia (Francas, 2021). Francas, D. concluded that possible measures undertaken by producers like multi-sourcing, agile capacity, and risk inventory would not likely lead to a significant shift in the global supply base (2021). The pain points such as business continuity, logistics, planning, and data science could appear in any department of a pharmaceutical company (Anzola & Chen 2022).

Many studies on the topic of managing sales teams during the pandemic have been conducted after 2020. In one of them, Hartman, N.H. and Lussier, B. concluded that the pandemic has caused significant changes in B2B sales teams (2020). The pharmaceutical industry and building resilience of sales teams in the pharmaceutical sector were not separately examined. Some of the studies in the pharmaceutical sector refer to organizational culture and motivation in pharmaceutical companies. Lange, M.A., and Hernandez-Bark, A. conducted a study in German pharmaceutical companies, trying to systematically analyze two positive leadership styles authentic and transformational leadership (2020). The motivation of the sales team in a pharmaceutical company is directly correlated with leadership behavior (Ahmed et al., 2016, p. 180). This research can provide valuable insights into the functioning of the global pharmaceutical industry and how its vulnerability affects sales performance and the resilience of sales teams.

## 3. An overview of the pharmaceutical industry

In the 3rd decade of the 21st century, the pharmaceutical industry has met constant, considerable growth. Considering the IQVIA report of the global use of medicine in 2019 and the outlook to 2023 the global spending on medicines has reached 1,2 trillion US dollars in 2018, with the expectation to exceed 1,5 trillion US dollars by 2023 as shown in Chart 1 (IQVIA Institute for Human Data Science, 2019:2).

**Chart 1.** Global medicine spending and growth 2009-2023 (forecast 2019-2023)



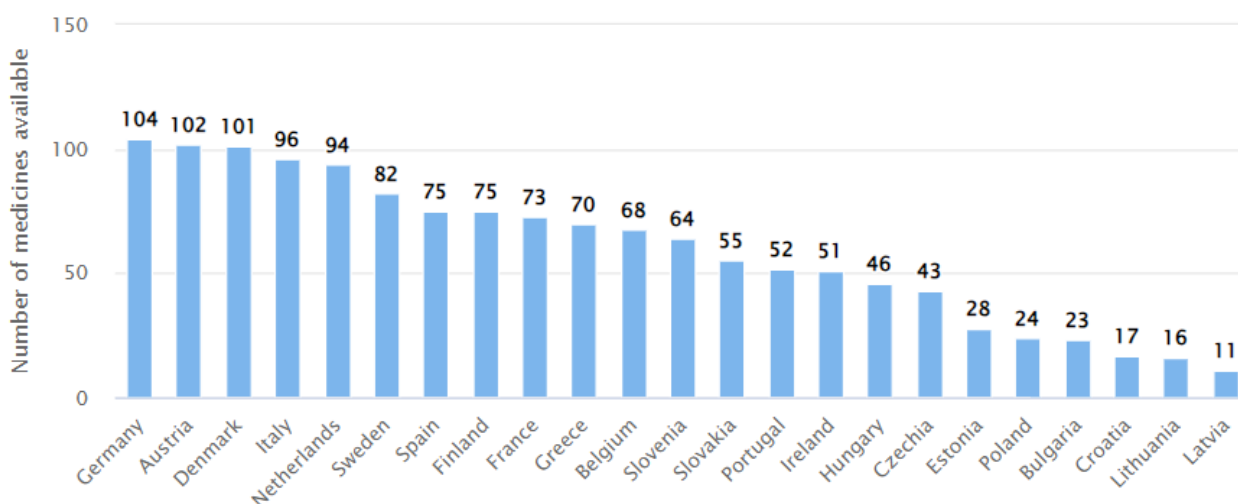
Source: IQVIA Institute for Human Data Science. (2019, January). *The Global Use of Medicine in 2019 and Outlook to 2023 Forecasts and Areas to Watch*. <https://www.iqvia.com/insights/the-iqvia-institute/reports/the-global-use-of-medicine-in-2019-and-outlook-to-2023>

Further analysis shows that the United States takes the first place in medicine spending, and the global spending in 2022 was roughly estimated to be 1,48 trillion US dollars. Most of the pharmaceutical revenues are generated in the North American and European markets (Global spending on medicines in 2010, 2022, and a forecast for 2027 | Statista, 2023, August 30). Europe and North America, together with Japan, Canada, and Australia form the developed markets, and the rest of the global pharmaceutical revenue comes from emerging markets like China, Russia, India, and Brazil (Worldwide Pharmaceutical Sales by Region 2020-2022 | Statista, 2023, March 6). Different factors, such as severe weather events, the COVID-19 pandemic, inflation, and new therapeutic solutions, are influencing management decisions about manufacturing and supply chains in the global pharmaceutical industry (Dukart et al., 2022).

For more than a decade, companies have tried to lower their production cost by relocating partially their manufacturing sites in Asia from the United States and the European Union, specifically in China and India, which is why this region is known as “the pharmacy of the world” (Francas, 2021, p. 3). According to US Food and Drug Administration data, in 2019, for the small molecule business, almost 40% of the registered production capacities were based in India or China (Lesmeister et al., 2020). The rapidly aging population in China made them after the United States the second-largest pharmaceutical market in spending medicines. The China manufacturing market is steadily transforming from a high-speed to a higher-quality market, shifting the direction to a more value-added economy. The regulatory changes, the reform in merging, acquisition, and R&D spending, as well as entering the International Council for Harmonization of Technical Requirements for Pharmaceuticals for Human Use will shift China to a strategic and R&D hub (Topic: Pharmaceutical Industry in China | Statista, 2023, August 31).

The European Union brought a new pharmaceutical strategy with the intention to have “well-functioning international supply chains and well-performing single market for pharmaceuticals” which will cover the entire life-cycle of a product, from production, distribution, marketing, consumption to disposal (European Commission, 2020:5). During the recent pandemic, the European Union has demonstrated lot of strengths and high standard in the healthcare, but at the same time it was easy to identify existing problems related to the supply of medicines and medical devices, the availability of production capacities to adapt and support the production of drugs (European Commission, 2020:5). Medicine shortages have been a primary concern even before the Covid-19 pandemic for the European Commission. Shortages can endanger public healthcare and, the number of medicines approved by the European Medicine Agency, leading to extended hospital stays, possible patient mismanagement, and inadequate care (European Parliament, 2020, September 17).

**Graph 2.** Numbers of medicines approved by the European Medicine Agency EMA between 2015-17 available to patients in Europe as of 2018, by country (availability of new medicines in Europe in 2018, by country)



Source: European Commission. (2020). *Reform of the EU pharmaceutical legislation*. [https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/promoting-our-european-way-life/european-health-union/reform-eu-pharmaceutical-legislation\\_en](https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/promoting-our-european-way-life/european-health-union/reform-eu-pharmaceutical-legislation_en)

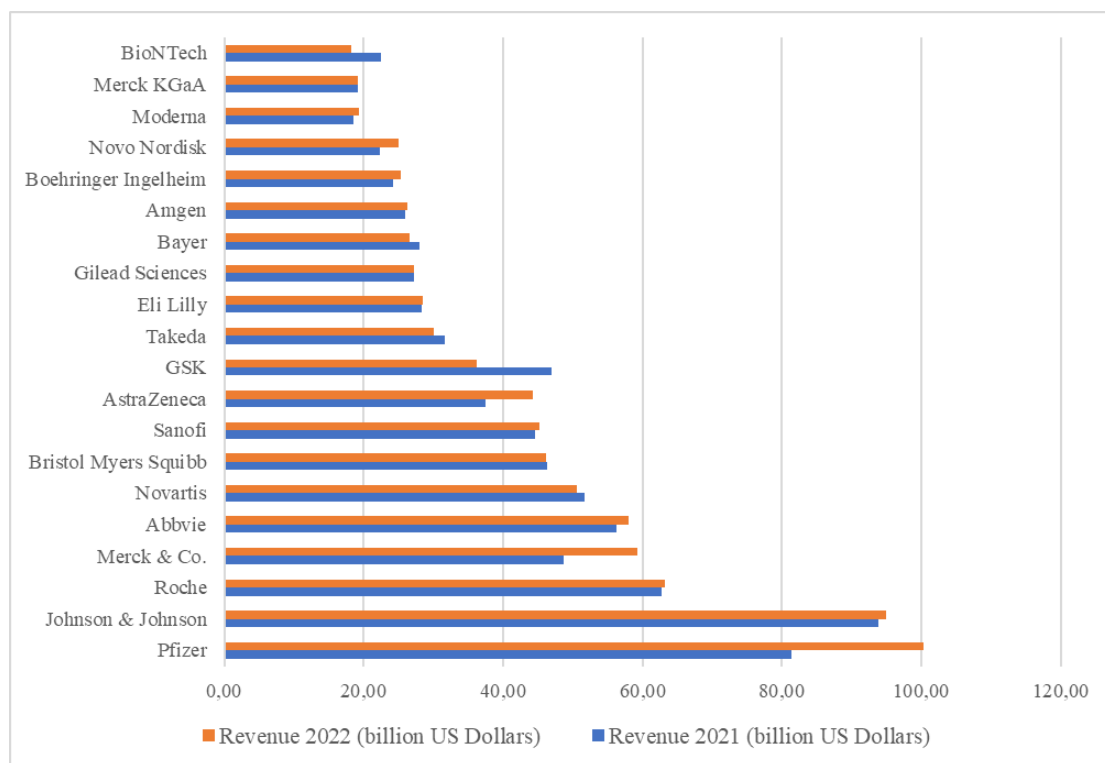
In Croatia, before the pandemic the producers were obliged to inform the Agency for Medicinal Products and Medical Devices (HALMED) by implementing a precise system for tracking and analyzing the traffic of specific medications, Croatia could gain a model for predicting and preventing drug shortages. Targeted management of this data would enable the healthcare system to respond promptly through emergency imports or efficient interventions in the Croatian Health Insurance Fund's Drug List by including the medication from additional manufacturers together with the Agency started a project that aims to make the medication traffic transparent. By implementing the project for tracking shortages, transparent data about the quantities of specific medications in the country can be accessed and it could predict shortages (Hub, 2021).

#### 4. How to build resilience in sales teams

The pharmaceutical industry met different obstacles on a global level that harshly influenced supply chains, like tsunamis in Asia, hurricanes in America, floods, droughts, and fires across the globe, with an emphasis on the latest healthcare crisis. The basic idea of this article is to suggest the concept of better management organization in pharmaceutical companies with a focus on sales. It's not a question of whether new disruptions will occur in the market, but whether pharmaceutical company management will use the acquired knowledge and experience to lead more resilient sales teams.

If the revenue of the top 20 pharmaceutical companies is observed in Graph 3, it is clear that 65% of them achieved an increase in sales in 2022 compared to 2021 (Dunleavy, 2023). However, for a more accurate analysis, it would be necessary to also compare the increase in costs due to the higher research and development expenses, delayed or canceled medical research, raw material shortages for drug production, slowdowns, or disruptions in distribution from different regions of the world. In this equation for an even more thorough examination, one should consider what the revenues would have been if sales had occurred under regular market conditions. It is also crucial to take into account the major disruptions in the delivery and quality of healthcare, which have led to an increase in the number of patients and mortality rate due to the inability to receive timely medical services. Some of the biggest pharmaceutical companies decided to lower their costs by workforce reduction. Novartis, as the 6<sup>th</sup> company worldwide, considering their revenues, fired about 8.000 employees including some C-level managers (Dunleavy, 2023).

**Chart 3.** 20 biggest pharmaceutical companies by revenue 2021-2022



Source: Author's analysis based on Dunleavy, K. (2023, April 18). *The top 20 pharma companies by 2022 revenue*. <https://www.fiercepharma.com/pharma/top-20-pharma-companies-2022-revenue>

Sales representatives are a crucial component of the marketing strategy for many companies, particularly for those operating in business-to-business markets (Ingram et. al., 2019, p. 3). Taking into account the recent disruptions on a global level, it is important to reconsider the job settings of the sales representatives and to point out the importance of their role in pharmaceutical organizations. Sales representatives are acknowledged professionals, who have a pivotal position in pharmaceutical companies because of the following:

- understanding the mechanism of the medicine or medical product they sell,
- educating medical professionals about the safe use of medicines or medical products and treatment options for patients,
- having an interest in the well-being and safety of patients and medical staff,
- building a trusting relationship with healthcare professionals,
- collaborating with doctors, pharmacists, and medical and pharmaceutical technicians, seeking to find the right treatment for the right patient.

The decision-making processes in pharmaceutical sales management in the last decade struggled with regulatory responses to a crisis, ethical dilemmas, and the need to preserve workplaces. Some of the ethical dilemmas during the pandemic were about vaccine distribution and access to the population in low-income countries, deciding between urgency and high standards in clinical trials, as well as data transparency for maintaining public trust. Working conditions were notably changed for pharmaceutical representatives. Medical and sales representatives were unable to carry out their daily tasks of promoting drugs, and the entire promotion and sales activities shifted to digital communication methods. Promoting drugs is an integral part of patient healthcare because, with marketing and sales activities, medical professionals stay educated about medicines, their usage, and recommendations for patients, new therapies, new molecules, and new ways of treating various diseases. Such a new way of working has increased uncertainty and reduced the motivation of sales teams. It became evident that companies had to adapt their strategies to the changing circumstances.

Building more resilient sales teams already involved shifting to digital sales and marketing channels, providing remote training and support to marketing and sales representatives, and ensuring compliance with new regulations and safety measures. The specific approaches vary by company and region, but the key goal would be to continue providing essential medications and healthcare products while minimizing risks to everybody in the healthcare chain from patients to medical professionals and pharmaceutical company employees.

To develop a high-quality concept for managing sales teams that will ensure resilience, the use of the MER model of integrated management is suggested (Belak & Duh, 2012, p. 6). In this way, it will play a crucial role in achieving high flexibility and sturdiness through the following:

- Involvement in the Planning Processes – if employees are actively involved in planning processes, the company enables them to be aware of strategies and goals and better adapt to changes.
- Awareness of the Market Disruptions – inclusion in the process of monitoring and understanding market changes allows teams to quickly adapt to new conditions and demands.
- Continuous Education – is necessary not only for specific knowledge about pharmaceutical products or services but as well for personal development and motivation which are crucial for success. Continuous education helps teams improve their skills and work more efficiently (Parsons, 2022).
- Collaboration Across Departments – collaboration between different departments within the pharmaceutical company is essential for alignment and mutual support in achieving everyday sales goals.
- Education on New Technologies – technological changes are inevitable and necessary, so it's important for sales teams to be educated about new technologies to remain competitive.
- Flexible Working Conditions – flexible working hours and the possibility to work from home can help employees better balance work and personal life, increasing their motivation and productivity (Toković & Deković, 2021, p. 84).
- Understanding Regulatory Frameworks – understanding and complying with regulatory requirements is crucial to avoid potential legal issues in the pharmaceutical market.

## 5. Final discussion and conclusion

The global healthcare system has revealed all its frailty during the last decade, in which economic crises, weather disasters as a result of climate change, and the COVID-19 pandemic happened. There is a need to discuss in the future what are the possibilities to develop strategies for making sales teams more resilient.

This article proposed the usage of the MER model of integrated management to develop a high-quality concept for managing a successful and resourceful sales team. All mentioned components, such as involvement in the planning process, awareness of market disruptions, continuous education, collaboration, flexible working conditions, and regulatory framework, contribute to the development of resilient sales teams capable of facing challenges and market changes. Raising awareness of the importance of individual and team roles and promoting resilience are key responsibilities of management to ensure the long-term success of sales activities.

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