



PHARMA INDUSTRY STAYING AFLOAT AMIDST SUPPLY CHAIN DISRUPTIONS ROAR

HOW IMPROVED PROCUREMENT PROCESSES MAY JUST BE THE REMEDY THE DISRUPTED PHARMA INDUSTRY NEEDS

Abstract

The pharma industry with its primary supplier base in China and India has been rocked by several supply disruptions over the years, and more recently by the pandemic. This paper traces the effect of these disruptions on the industry and lists some areas for companies to work on, towards developing greater supply resilience.



Disruptions in the supply chain are not new but the rattling caused by the recent changes on the geopolitical, healthcare,

and environmental fronts — especially during the global pandemic — has challenged every single industry across

the globe. Notably, these disruptions acted as a wake-up call for the pharmaceutical industry.

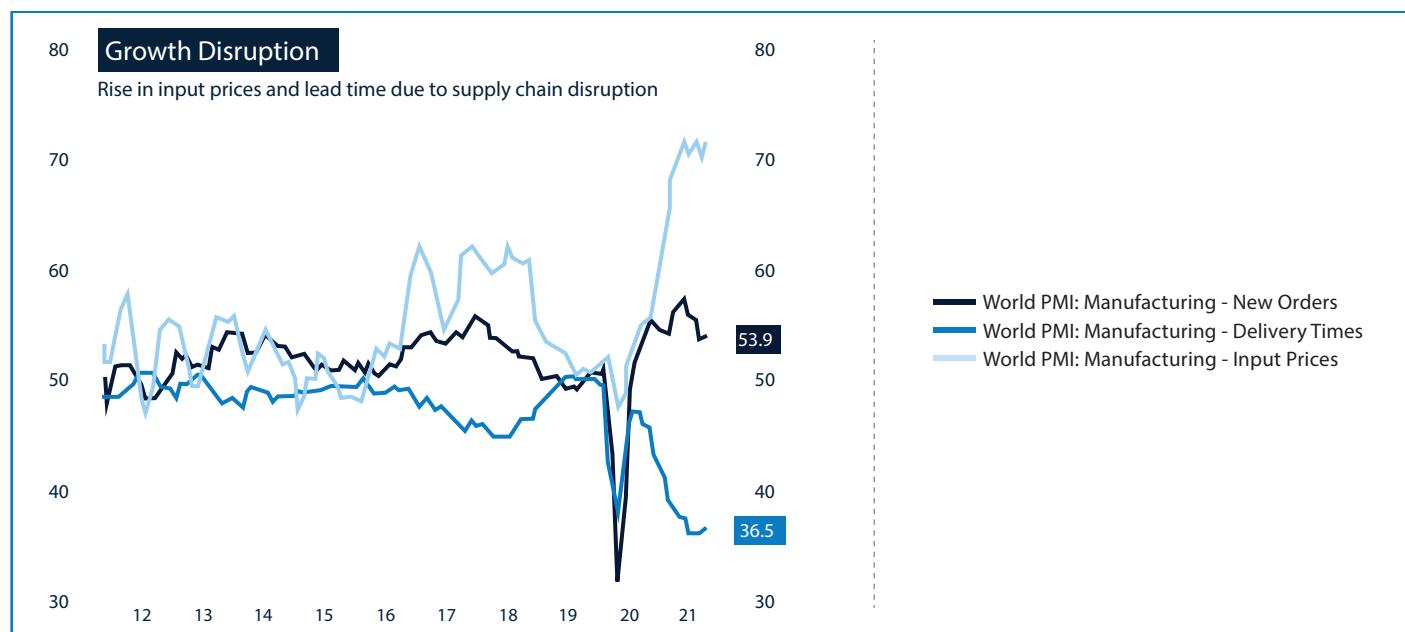


Fig 1: Supply chain disruption ¹

When pharmaceutical supply shortfalls severely impacted much-needed healthcare efforts during the pandemic, it forced several pharma companies to sit up and seriously consider the long-pending upgradation of their procurement processes. Even though many reports

highlighted how the industry responded promptly to the supply disruptions, pharma leaders realized their need for a more agile, resilient, and transparent supply chain to ensure production during any crisis.

Thus, even though all industries are working to adapt to the “new normal”, Pharma especially is expected to lead by example in transforming the supply chain through adopting innovative procurement measures.

¹ <https://www.reuters.com/business/global-markets-supply-pix-2021-11-03/>



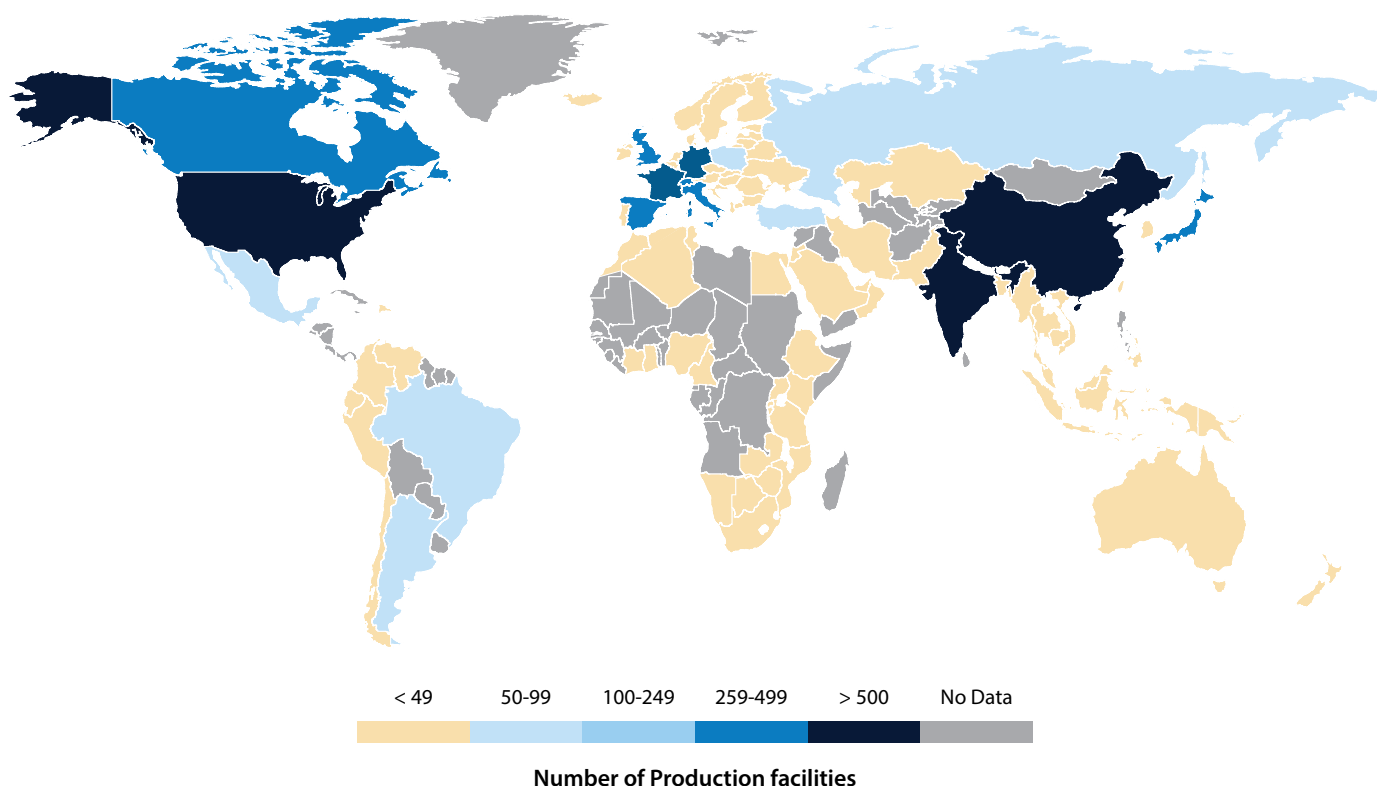
A history of hard hits

The Pharma industry has experienced quite a few major hits related to supply chain disruptions, especially over the

past 3 years. Interestingly, a majority of these were directly or indirectly related to China and India as these are the two major

producers of pharmaceutical raw materials, APIs (Active Pharmaceutical Ingredients), and formulations in the world.²

Dominance of India, China and USA in Pharmaceutical Production



China is the world leader in providing cost-competitive starting materials and APIs for therapeutic categories such as antibiotics, oncology, and cardiovascular. The dependency of many countries —

including India — on China, for some of the APIs or raw materials is over 80-90%. China's cost advantage comes from its economies of scale, government subsidies on a few materials, cheap electricity, and

fewer restrictions on effluent treatment and pollution control. Meanwhile, India comes second in the world in terms of supplying low-cost pharmaceutical raw materials and products.^{3,4}

² <https://www.cato.org/blog/what-politicians-are-biggest-medical-supply-chain-risk>

³ <https://www.cato.org/blog/what-politicians-are-biggest-medical-supply-chain-risk>

⁴ https://cen.acs.org/business/outourcing/COVID-19-resaping-pharmaceutical-supply/98/i16?utm_source=YMAL&utm_medium=YMAL&utm_campaign=CEN&utm_content=pos1

Supply Chain Disruption Timeline 2018-2021

China Pollution Crackdown

In early 2018, China started the largest drive across the nation for inspecting 30 provinces for Air & Water pollution control resulting in impacting operations of 40% of the manufacturing units

FY
18-19

Jiangsu's Chemical Blast

After the deadly explosion, Jiangsu authorities issued a production suspension notice or temporary halt of production to many factories and even ordered potentially hazardous factories to shift away from densely populated urban areas

March
2019

Covid-19 Outbreak

From Mar-20 onwards, factories across the world started to shut down either due to material shortage, price increase or manpower shortage. A complete state of chaos was experienced across all the industries around the globe

Nov
2019

Global Health Crisis

The two waves (1st wave starting Mar-20 & 2nd wave starting Mar-21) have taken a toll on each country's healthcare system and the global economy. The series of lockdowns and travel restrictions have resulted in an impact on each sector

FY
20-21

Vaccine Rollout

When the vaccination rollout across the globe picked up during Nov-20, it resulted in taking huge supply bandwidth of logistics across the globe for vaccine supply

Nov
2020

Suez Canal Blockage

The 6-day blockage of the Suez Canal resulted in a backlog of hundreds of ships which later impacted the congestion at destination ports causing stretched lead times which further created a shortage of shipping container availability across the globe for months

Mar
2021

Power Crisis in China

The power crisis in China was a result of multiple factors, such as:

1. To meet the targets to cut carbon emission as per commitment in UN 2020 Summit on Climate Change
2. The upcoming Winter Olympics in China in Feb-22
3. The political tensions between China and Australia due to which the coal supply from Australia stopped

Sep
2021

Next Covid-19 Wave

Omicron has spread to more than 108 countries in a month. The world is getting ready to embrace another wave of Covid-19, which may result in further travel restrictions and supply concerns

Nov
2021

In the recent past, the timeline of disruptive events depicted above has impacted global pharma supply chains in a major way. These disruptions posed several challenges such as limited availability of material and manpower and increase in cost pressures that made it difficult for both large and small manufacturers to keep their plants running at full capacity while safeguarding their margins.

For instance, during the pandemic, there was a surge in demand for COVID-19 management medicines like Hydroxychloroquine, ARV's, Azithromycin, Paracetamol, Doxycycline, and Vitamins. Yet, with manufacturing plants running at as low as 30-50% of capacities, the industry found itself in dire straits. In fact, with demand for some of these products increasing by up to 250% during the peak of first COVID wave, the prices too shot up by 80-150% which became difficult for manufacturers to manage. Additionally, freight rates too shot up due to scarcity of shipping containers, limitations on air/ sea shipments, as well as lower manpower availability, resulting in piling up of shipments at ports.^{5 6 7}

In a nutshell, the pandemic posed challenges at every level be it material availability, lower production capacity usage, manpower constraints, mobility restrictions within/across countries, shipping containers shortage, air space availability, congestion at ports/ warehouses, and all-time high material and freight costs. All these factors caused massive logistical and distribution imbalances in the pharma supply chain.



⁵ <https://www.prnewswire.com/news-releases/coronavirus-leads-to-multi-fold-increase-in-api-demand-beroe-analysis-301066769.html>

⁶ <https://timesofindia.indiatimes.com/business/india-business/costs-of-raw-material-for-drugs-rise-by-up-to-140/articleshow/84569034.cms>

⁷ <http://www.pharmabiz.com/NewsDetails.aspx?aid=129007&sid=1>

Charting a new course for the new normal

Post the global pandemic, procurement has emerged as an essential business enabler for almost all industries including pharma. Considering that the ongoing

supply chain uncertainties are likely to continue for some more years, this new role of procurement becomes even more pivotal. Towards this, below are a few areas

for the pharma industry to focus on to strengthen its procurement mechanisms:

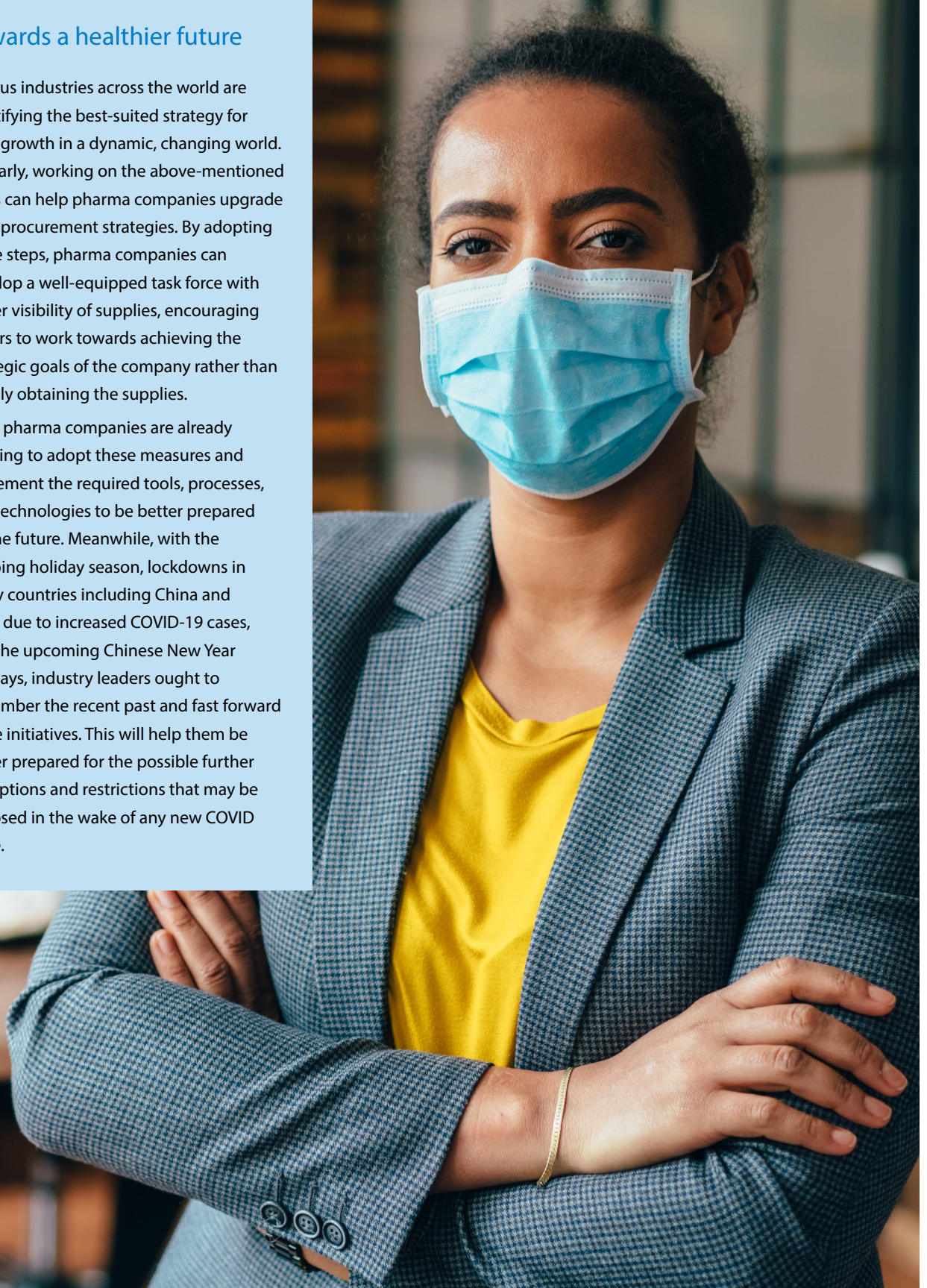
- **Increasing visibility and control:** Owing to the role the pharma industry plays in maintaining the healthcare system, pharma companies need to expand their visibility and equip themselves to respond instantaneously during a crisis. Companies can make use of a real-time view of spending to understand details related to inventory, costs, and suppliers. Using analytics on this data, can deliver actionable insights on future demand to improve contract terms, manage inventory, and build supplier relationships. Such real-time information can further help the companies get detailed insights on buying and spending.
- **Eliminating mundane activities:** Most pharma employees today wish for freedom from mundane activities to focus on more meaningful work. Towards this, the workforce needs to be utilized in a more effective manner by using automation for the mundane tasks, and by equipping personnel well with tools and technologies to function better. There is also an immense need to work on the capabilities of each member to get teams abreast with the latest technologies or automations.
- **Enhancing supplier relationships:** Improved supplier relationships has emerged as an integral measure for companies to set their path to recovery after the COVID blow. During the pandemic, when most agreements and contracts became void under "Force Majeure" clauses, good relationships with suppliers played a vital role in managing demand. Though the importance of supply agreements and long-term contracts cannot be ignored, there is a shift towards building strategic partnerships with important suppliers to safeguard top-line products.
- **Assessing supplier risk:** The focus of procurement today has shifted from cheaper sources to cost-effective yet reliable sources. Though supplier risk assessment is not a new concept in the industry, pharma companies have now begun refining their supplier assessment criteria to ensure supply continuity in a changing world. Earlier, where financial stability, quality standards, and low pricing were important criteria to evaluate suppliers, now sustainability parameters such as ethic, labor, health & safety, environment, and CSR have a higher weightage than before. Many companies are working with experts to evaluate the top suppliers based on their sustainability policies, as well as to review and even make the required suggestions or recommendations to suppliers to ensure the effectiveness of such policies.

Procurement managers are also now evaluating their suppliers' ability to deliver with shorter lead-times and their proactiveness to mitigate risks through staying competitive, evaluating cost improvements, or addressing new regulatory or quality norms. For example, in mid-2018, when the Nitrosamine impurity risk evaluation exercise started across the pharma industry, there were very few manufacturers who had the capability or expertise to perform the initial Route of Synthesis evaluation or who could invest the huge amounts required for testing set-ups to complete the evaluations on time and to ensure supply continuity. On the other hand, small manufacturers had to depend on external labs to perform the risk evaluations, taking months to gather the required data and get the final reports for regulatory submission.
- **Reshoring or near-shoring:** After uncertainties about supplies from China due to plant shutdowns and constant price increases over the last few years, many industry leaders are now contemplating on de-risking their supplies from China. Thus, efforts towards reshoring and nearshoring the important chemicals, starting materials, advanced intermediates, and API's have been initiated across the industry. Pharma giants are today exploring opportunities to even get into strategic alliances with small manufacturers towards transferring the knowledge and know-how to develop the required materials or products.
- **Developing multiple source and manufacturing capacity/location:** For pharma companies, switching to a new source or manufacturing location is a time-consuming process considering the approval requirements and timelines that extend to several months or in some cases even years. Hence, companies are more focused on developing alternate manufacturing locations/suppliers for their top-line products to ensure market availability and safeguard their revenues during crisis.
- **Enhancing Government support for local manufacturers:** Governments of many countries like US, Europe and India have come forward to support pharmaceutical companies to deal with their supply chain crises, especially to lower the dependency on China. They are providing subsidies on manufacturing few basic chemicals or starting materials for important products, enabling companies to access land, water, and electricity at cheaper rates. They are also building policies around cybercrimes — as the pharma industry has been on the radar for cyber-attacks over the last few years — and intervening on the logistics front to ensure cooperation from all geographies for smooth movements

Towards a healthier future

Various industries across the world are identifying the best-suited strategy for their growth in a dynamic, changing world. Similarly, working on the above-mentioned areas can help pharma companies upgrade their procurement strategies. By adopting these steps, pharma companies can develop a well-equipped task force with better visibility of supplies, encouraging buyers to work towards achieving the strategic goals of the company rather than merely obtaining the supplies.

Most pharma companies are already working to adopt these measures and implement the required tools, processes, and technologies to be better prepared for the future. Meanwhile, with the ongoing holiday season, lockdowns in many countries including China and India due to increased COVID-19 cases, and the upcoming Chinese New Year holidays, industry leaders ought to remember the recent past and fast forward these initiatives. This will help them be better prepared for the possible further disruptions and restrictions that may be imposed in the wake of any new COVID wave.



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Monika has over 10 years of experience in Sourcing and Procurement across the Pharmaceutical domain. She has worked on many cost and process improvement initiatives across the supply chain domain over the past few years. She has done some commendable work in cost-saving and building negotiation strategies while working on various product portfolios.



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Michel has over 20 years of global experience as adviser, practitioner, and outsourcing expert.

His specialization include procurement organization design, procurement transformation, and procurement outsourcing. He has been working with clients across multiple industries such as Logistics, Finance, Pharmaceutical and Manufacturing. He is part of the management team for S&P at Infosys BPM and responsible for Europe.

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