Pandemic Economics - Decode the Business Impact Part A: Pandemic Impact on Global Pharma Supply Chain

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Supply chain management (SCM) aims to streamline the entire production flow of a good or service right from sourcing the raw inputs all the way to delivering the final product to the consumer. To accomplish this task, every company creates a network of suppliers that move the product along from the suppliers of raw materials to the organizations who deal directly with the users. Generally, when the supply chains are effectively managed customers will get the right product in the right quantity at the right place at the right time. As regards pharma companies, they make and distribute drugs quickly so that the right drug reaches the right patient's hands.

Global Supply Chain: The pharma industry operates through a global supply chain making it more challenging to meet the drug needs of the patients. There are three critical steps in which medicines are produced around the world. Each of the aforementioned segments of the global pharma chain is conducted across different nations of the world:

- Step 1: Raw biochemical ingredients are manufactured and transformed into 'intermediaries'.

- Step 2: Intermediaries are further processed into an active ingredients format but which is not readily consumable by patients.

- Step 3: Active ingredients are transformed into consumable forms.

Fig 1: Global Pharma Supply Chain
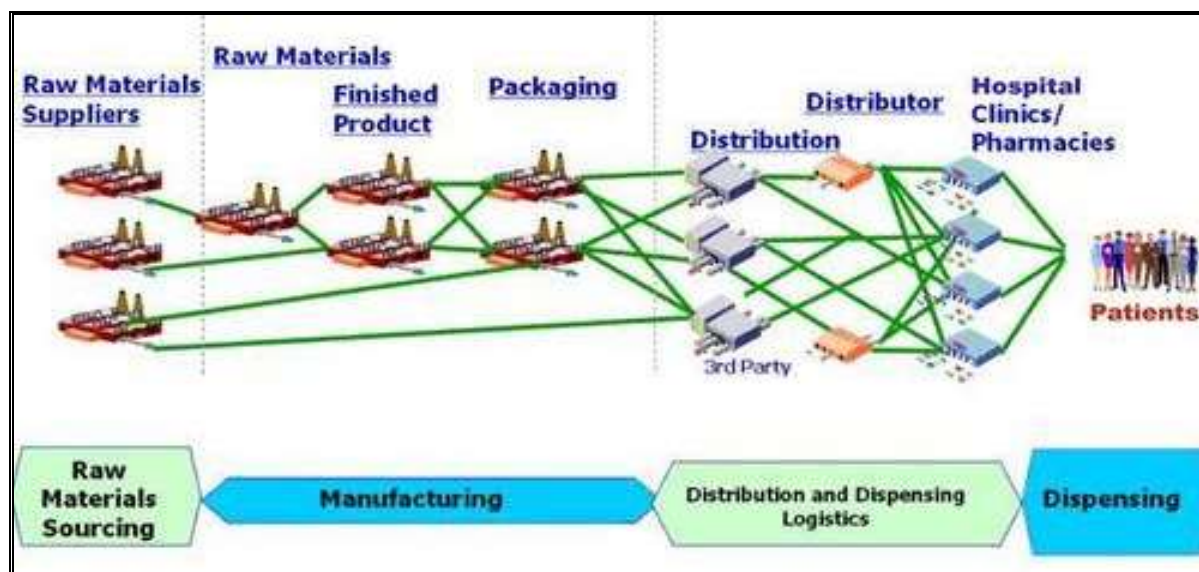
Asian Drug Dominance: Asia in general and China & India in particular dominate the pharma value chain where majority of APIs are made in China. China is not only the world's largest supplier of APIs but also engages in the supply of other key ingredients. China primarily operates in segments such as antibiotics, antiretrovirals for HIV, diabetes drugs, and painkillers. Moreover, China and India are deeply connected as India depends on the former to the tune of 70% of its API requirement along with other basic chemicals, key starting materials (KSMs), and intermediates. Around 70% of the demand for generic medicines in the developed world is met by India. USA is extremely reliant on India as it imports 40-50% of its generics. Concentration risk associated with production and sales makes it difficult to prepare for uncertainties. If only the industry was spread thin and wide globally, there would have been a smooth flow of pipeline of drugs across nations.

Pandemic Outbreak: Pandemics are large-scale outbreaks of infectious disease that can greatly increase morbidity and mortality over a wide geographic area. Coronavirus outbreak emerged in Wuhan, China on 31st Dec, 2019 when the WHO was alerted because of several unusual cases of pneumonia. The spread of the unknown coronavirus was very rapid in China. Strict lockdowns were put in place since Jan 23rd, 2020 to contain the epidemic. This resulted in curtailment of pharma operations and shipments to the world. This made it difficult to provide the necessary medical support to the patients when it was required the most. While the lockdown was relaxed in China, the pandemic had already entered India by late February. The government of India initiated a 21-day lockdown on March 24th, 2020. Pharma manufacturing in India was severely hampered like any other business. To make matters worse, Indian government had also placed restrictions on export of 13 APIs and the drug formulations made from them in anticipation of domestic shortages.

Side Effects: Pharma supply chains are subjected to a variety of exogenous factors (external to the firm) which causes disruptions. Seller partners react to such disruptions by making decisions internally which are all the more difficult to predict and prepare adequately. But supply chain networks make sustained efforts to reduce the likelihood of disruptions across each touch point of the value chain. The very purpose of any SCM is to keep chaos at bay – synchronizing the activities of the network. The supply issues in China had impacted every player across the world as global pharma companies are extremely reliant on China. The immediate effects of supply chain disruptions in the wake of pandemic were:

- Global generic drug manufacturers (including Indian pharma companies) who source APIs from China faced erratic supply of inputs.

- Short-term scarcity most likely in the category of fermentation-based drugs such as crucial antibiotics penicillin, amoxicillin, ampicillin, tetracycline and essential vitamin and hormonal pills.

- Branded pharma producers are witnessing a shift in their demand, both as antiviral use rises and as other chronic conditions are left untreated by patients due to concerns over exposure to COVID-19.

Conclusion: A shortage of drug not only enhances the cost of healthcare but also jeopardizes the health of the patient which may even lead to death. Availability of drugs to patients is hence the responsibility of stakeholders of supply chains as well as health care administrators.

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Pandemic Economics - Decode the Business Impact

Part B: Coronised E-commerce in India

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Technology had facilitated the e-commerce ecosystem (network of interconnected functions that comprise the full cycle of the buying and selling of goods and services electronically) to operate globally round the clock. Consumers had enjoyed the benefits of shopping online in terms of time and cost savings, greater variety/selection, avoid crowds/checkout lines, free shipping offers, overcome locational disadvantages and so on and so forth. In a pandemic situation like the current coronavirus where the entire nation is under a lockdown, none would take the risk of stepping out of their homes for sourcing essential goods including food, pharmaceuticals, and medical equipment. At this juncture, when everyone would like to shop online from the convenience of their homes, order fulfillment has become a major challenge for the ecommerce majors in India. This is despite the fact that e-commerce companies are committed to employees, vendors, and supplier-partners and loyalty is reciprocated by these stakeholders.

Lockdown Blues: Prime Minister of India, Narendra Modi had announced the world's largest lockdown on 24 March, asking 1.3 billion Indians to stay home for 21 days to slow the spread of coronavirus. The lockdowns in the developed world pale in comparison to the ones experienced in the Indian subcontinent as it had a very deep social and economic impact. Millions of Indian labor class was thrown out of work and migrant workers moved back to their rural homes in packed buses and trains. As transport options dried up, many families simply began to walk to their distant villages with little access to food. Factories got shut abruptly and companies engaged in logistics were subjected to stoppages near the state borders.

Shopping Behavior: Generally, the online shoppers in India are dominated by employees/ professionals who search for value by comparing prices online across multiple platforms and read product reviews to understand the experience of other buyers. The global pandemic, COVID-19 is widely acknowledged as a *black swan* and a defining event of 2020. The complete shutdown of gyms and spas, movie theaters, parlors, restaurants, etc had released lot of free time for the shoppers who are working full time from their respective homes. This isolation and uncertainty coupled with fear and anxiety has a significant impact on the shopping behaviors from bulk buying to online shopping. Shoppers have prioritized their requirements like what, when and how are they are going to buy. General public is avoiding civic places and non-essential businesses are forced to shut shop. Essentials became the new normal and public adopted the restricted lifestyle with minimal resources. Stockpiling has extended beyond emergency items to grocery basics and essentials, such as canned goods, bottled water, toilet paper, hand

sanitizer and cleaning products. Thanks to the pandemic, the e-commerce and online grocery delivery service sector got a real fillip.

Market Dynamics: The sudden spike in market demand was a reality check for the etailers to ensure that their e-commerce websites and mobile apps provided secure and frictionless online service to the customers. During the first week of the lockdown period, the average online orders surged for staples with edible oil grew by 106%, salty snacks by 84%, soft drinks by 68% and biscuits by 31%. Considering the safety needs of the shoppers in the wake of the coronavirus outbreak, sales of hand sanitizer clocked 1425% growth, face mask grew four-fold, hand wash by 86%, floor and toilet cleaner by 77% respectively. An interesting online trend witnessed during this period of restrictions was a noticeable rise in the number of first-time e-commerce users (FTUs) who were initially apathetic and apprehensive about online shopping. The box items reveal to what extent frontline e-grocers and e-commerce players were overburdened with orders and their level of preparedness to meet a sudden rise in the demand.

> Amazon.in: WE ARE GETTING BACK ON TRACK. We are delivering existing pre-paid orders of essential items and deliverables for new orders will take longer than usual.

> BigBasket.com: Dear Customer, we are now servicing in your city. But due to a massive backlog of orders and some operational constraints, you may not find delivery slots. We are working to resolve this soon.

Order fulfilment: Large players in the e-commerce space like Amazon India, Grofers, BigBasket and Milkbasket faced disruptions in delivery to their customers. This is because of the fact that it is relatively difficult to procure passes for their logistics and delivery staff for each state separately. These companies started working with the appropriate authorities to ensure that they are able to operate in compliance with the government regulations concerning delivery of essential goods/services. Online shoppers have also requested Amazon for assistance on social media regarding the ordering of critical products. Similarly, Flipkart is also encountering struggles with restrictions on last-mile delivery after the merchandise leaves their warehouse. BigBasket, a grocery delivery platform is operational in cities like Ahmedabad, Bengaluru, Bhopal, Mumbai, Noida and Vadodara even though severe restrictions are imposed on the movement of their staff and vehicles by the administration. The staff of ecommerce companies are being punished by local police despite government orders to exempt them from lockdown restrictions.

Non-availability of Essentials

The percentage of consumers unable to find essential goods at offline stores has increased in the last two days, while availability of essentials online improved slightly

CONSUMERS UNABLE TO BUY ESSENTIALS (IN %)

VIA ECOMM APPS		AT OFFLINE STORES	
20-22	35	20-22	17
23-24	79	23-24	32
24-26	61	24-26	43

Source: LocalCircles

Players Response: Walmart-owned Flipkart resumed its grocery and essential services delivery after assurance of safe passage of its supply chain and delivery executives by local law enforcement authorities. Grofers, which initially saw some of its delivery staff getting arrested and over 60,000 deliveries affected, has resumed operations in Delhi, Gurgaon, Faridabad, Noida, Ghaziabad, Bengaluru, Ahmedabad, Lucknow and Kanpur with the help of local authorities. Snapdeal has extended the timelines available to its sellers for shipping the orders received by them and has also communicated that no cancellation charges or penalties will be levied if seller-partners are not able to ship in time or ship at all. Milkbasket has been able to resume partial operations across Gurgaon, Noida and Bangalore. This was made possible because online marketers worked closely with government officials and logistics partners to ensure ease of deliveries and quick service. The upshot: some state governments and local authorities sprang into action to remove the roadblocks but not all, for safe and smooth passage of supply chain and delivery.

Expectation Setting: Across the board, be it a e-commerce player such as Flipkart and Amazon, e-grocers like BigBasket and Grofers, or B2B stalwarts like Jumbotail and Udaan have alerted their customers/consumers about the probable delay in delivering the merchandize because of a sudden imposition of restrictions on manufacturing and movement of both goods and people. On the one hand, there is spike in orders and on the other there is scarcity of workers/delivery boys due to the nationwide lockdown. Supply chains got disrupted resulting in a huge order backlog position which was unprecedented in the past two decades of operating online stores in India. E-commerce players in this emergency are trying their best to service orders especially for essential items. While inter-state truck movement has begun, companies are facing challenges of managing stock within fulfilment centers. Thus, the bottleneck has now shifted from trucks to respective fulfillment centers. Against this backdrop, the delivery timelines got stretched not only for of e-commerce companies but also their offline counterparts across the length and breadth of the country.

Conclusion: The biggest challenge for e-grocers and e-commerce firms including BigBasket, Grofers, Amazon and Flipkart are hiring on-ground staff after migrant workers fled to their native places from various big cities due to the ongoing lockdown, leading to a 80-90% labor shortage for firms. Companies including Flipkart, Amazon, Delhivery and Uber outlined their requirements in a meeting with the Department for Promotion of Industry and Internal Trade, Ministry of Consumer Affairs and a few other government departments to ramp up the availability of essential items across the country. Online grocery delivery service companies have now partnered major e-commerce platforms like Flipkart and Amazon, who are

delivering only essential goods in the wake of the Covid-19 pandemic. Hopefully, Indian shoppers would not have too many unpleasant experiences due to the logistic nightmare created by lockdown in the aftermath of a pandemic.

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