

IMPACT OF COVID-19 ON SUPPLY CHAIN AND LOGISTICS

Mrs. Aparna Lalitkumar Patil

Research Scholar – JJTU & Assistant Professor – Parle Tilak Vidyalaya Association's Institute of Management, Vile Parle (East), Mumbai), (Affiliated to University of Mumbai)

Dr. Bhupesh V. Rane

Research Guide – JJTU, (Director – Rohidas Patil Institute of Management Studies, Bhayander), (Affiliated to University of Mumbai)

ABSTRACT

In early January 2020, coronavirus outbreak started to build up as a pandemic in the city of Wuhan in China, leading to social, human as well as economic disturbance, leaving no life untouched. COVID-19, the coronavirus pandemic impacted the production, logistics as well as the supply chain system in the entire world. As companies, around the globe are trying to repair their shattered value chains in the short-term and reduce their supply chain risks in the long-term, India also has an exclusive chance to emerge as a business terminus during and after the COVID-19 pandemic.

KEYWORDS: COVID-19, pandemic, supply chain, logistics, coronavirus, production.

Article Received: 10 August 2020, Revised: 25 October 2020, Accepted: 18 November 2020

INTRODUCTION

COVID-19, the coronavirus pandemic impacted the production, logistics as well as the supply chain system in the entire world. The supply shudder that started from February in China followed by the demand shock exposed vulnerabilities in the production, logistics and supply chains of firms just about in the entire world, as the global economy shut down. Trade restrictions and US-China trade war, resulted in the rise of economic nationalism. As a significance of all this, competitive as well as the political pressure on the manufacturers worldwide to increase their domestic production is growing. The manufacturers now are required to rethink on their manufacturing strategies that are required to be with increased employment in their home countries and minimizing the amount of inventory held in their global supply chains, which will result in the reduction or even elimination of dependency on outside sources, which are perceived to be risky.

Manufacturers today, in most industries have turned from only one supplier who focuses on one area and are specialist, to many other suppliers. This provides a manufacturer the flexibility of what changes to be made in the product and also help to incorporate the latest technology.

Logistics and supply chain management are existing from long back. The ideologies of the effective and efficient flow of materials & information to satisfy the customers have changed a little. From the building of the pyramids to the relief of hunger in Africa, it has remained the same till date, with little alterations. In the past, logistics strengths and its capabilities helped warriors to win or to lose the war.

Gradually, organisations have started recognizing the importance of logistics management, in terms that logistics management can help the organizations in gaining the competitive advantage.

Customers want products in low prices and will continue to want especially in recession period. Firms, on the other hand won't be able to charge more just because their manufacturing cost increased. Also the pressure to operate efficiently and effectively with the use of available capital and manufacturing capacity will remain relentless. The new challenge for companies today is to improve their supply chains without fading in competitiveness. To meet this challenge, managers need to first understand their weaknesses and then take steps accordingly.

IDENTIFYING THE RISKS

Understanding where the risks lie so that the company can protect itself may require a lot of digging. It involves going far beyond the first and second tiers of the supply chain and mapping the entire supply chain, including distribution facilities, logistics and transportation hubs. Since, this is time-consuming, most of the companies focus only on the direct supply chain, which ultimately brings business to a halt. Once the risks in the supply chains are identified, that information can be used either to diversify the sources or to store the key materials or items.

Expand the logistics base

The apparent way to handle the source having heavy dependence or the one with high-risk source (an only one factory or supplier or region) is to add more sources in locations not vulnerable to the same risks. The U.S.-China trade war has motivated some firms to shift to a "China plus one" strategy of spreading production between China and a Southeast Asian country such as Vietnam, Indonesia, or Thailand.

Managers need to revise an operational strategy of manufacturing a large proportion of the goods within that area where they are consumed. North America might be served by shifting their labour-intensive work from China to Mexico and Central America. Companies in Western Europe should increase their reliance on eastern EU countries, Turkey and Ukraine. Chinese manufacturing units which are trying to guard their share in global market are looking to countries like Egypt, Kenya and Sri-Lanka, for low-tech and labour-intensive production.

Looking at China's base in terms of availability and price in advanced machinery, electronics and electrical goods and the casting products, it would be quite challenging to reduce the dependency on China, in accessibility as well as cost effectiveness. However, searching markets other than China for some products like clothing, furniture and many household goods will be comparatively easier as the raw materials used for them are fabrics, timber and plastics, etc.

Alteration in the logistics strategies as well as changes in the supply chain is required for shifting the production from China to Southeast Asia. In the long run, it would not

be a right decision to remove China from the supply chain. The country's strong supplier networks, with flexibility in workforce, and large and efficient harbours and transportation infrastructure will make it remain as a highly competitive source for coming years. Moreover China being having the second-largest economy in the world, firms need to maintain their presence in its market to sell and also to gain the competitive advantage.

The alternate suppliers required are not necessarily immediately available. In such cases, company need to determine the quantity of stock or inventory to be held and at which level in the supply chain. Such safety stock, off course comes along with a lot of risk like risk of obsolescence and also the tied up of cash in the inventory. Safety stock is in contrary with the practices like JIT and lean manufacturing. But on the other hand, the savings from the application of these practices has to be evaluated against the disrupted cost that would incur due to higher prices paid for the purchase of raw materials suddenly in short supply, and also the time and efforts required to safeguard them.

OBJECTIVES:

1. To study the impact of COVID-19 on logistics and supply chain in India
2. To study the effect of Pandemic on the financial aspects in India
3. To understand the influence of pandemic on the international trade
4. To understand how New Normal can impact the economy

RESEARCH METHODOLOGY

This research is entirely based on secondary data and the analysis is analytical. The data has been collected through various sources such as articles, research papers and various websites. The main emphasis of the analysis is to study the distractions in the supply value chains and logistics caused due to the COVID-19 pandemic, during the lockdown and after unlock-down. The renovations that have to be made in the Indian business strategies to grab an opportunity to become an attractive destination for the countries who are looking for value chain investments.

The impact of COVID-19 on Global Supply Chain

The coronavirus pandemic may go down in the history books as the most expensive crisis (so far). While World War I and World War II were more expensive, the COVID-19 crisis is not over yet. The economic impact of COVID-19 will be a function of the magnitude and speed at which it spreads and duration over which it lasts. Overall, demand effects will probably be much larger than the initial supply shocks. Figure below shows the impact of COVID-19 on the economy. Typically, with supply side disruptions and a large death toll, a large-scale uncertainty creeps in among households and businesses which, in turn, leads to drop in consumption and investments. This ultimately leads to drying up of corporate cashflows and forces firms into bankruptcies, leading to workforce layoffs and a large-scale unemployment in the economy. Finally, as labour income falls and bad debts spike up, the overall financial health and aggregate demand in the economy is adversely impacted. The uncertainty tends to feed upon itself and thus, the economy is subjected to depressing loop.

Major challenges during COVID-19 outbreak

With the extensive outburst of COVID-19, nations across the world, are struggling to counter the bullying impact of the pandemic on the economic as well as on regional stability, with India being no exception. The significant consequences of the coronavirus outbreak has been already witnessed by the negative impact on the economy.

Some of the most evident indicators of negative sentiments include contraction in India's core sectors by 6.5% in March and a notable depreciation of the Indian rupee against US\$. Also, the monthly unemployment rate in April has spiked to 23.5% from 8.7% in March 2020. Some major sectors such as electronics, automobiles, entertainment, transport, tourism, and exports are in deep distress due to the disruptions in the global supply chain and routine operations. Below are some of the major common challenges triggered by the COVID-19 outbreak that are being or will be felt by the economy.

The increase in demand and supply disparity of labour

- Globally, 2.7 billion workers were affected because of lockdown due to COVID-19 pandemic. In India, the number of workers are severely affected due to the lockdown and other containment measures.
- In the sectors like textiles, mining, hospitality and agriculture, which is labour intensive, the cost of labour contributes hugely in the supply chain. With this significant rise and fall in the businesses, Indian companies, too, might go for downsizing.
- Subsequently, there can be shortage of labours due to their temporary migration during lockdown, while at the same time there can be lot of people willing to work but having no jobs left in market.

Market demand shocks

- COVID-19 pandemic has resulted into the lethargic customer demand due to job losses, decreased profits and low thoughts due to uncertainty.
- Though it is very difficult to discover the degree of change in demand, the pandemic may inspire the demand for first-purchase opportunity.

Supply chain diversions

- Shocks in demand have led to a fall in sales and as a result profitability of the firms. This, combined with uncertainty, will result in shutting of businesses and supply chain disruptions.
- Due to the high degree of integration and interdependence of value chains across economy and lockdown, the extent of impact on the economy will be multi-fold.
- High dependence on China can also result into major disruptions in the supply of the raw materials in India.
- Most of the sectors are facing the problems like production delays, reduced transportation options, closing of the stores, which resulted in the decrease in revenue preventing the companies to meet their operational expenses also.
- After unlock down too, the manufacturing units across the world are having limited availability of cargo / transportation services, which will lead to not only

delayed shipments but also increased logistics cost.

Working Capital Crisis

- COVID-19 has strained the working capital or liquidity because of production shutdowns during the lockdown period around the world and the expenses towards the fixed costs.
- Cash flow challenges will last even after unlock down because of decreased demand, resulting in decrease in the inventory stock, with MSMEs being the worst hit, as they work on shorter working capital cycles.

Way forward to “NEW NORMAL”

On 13th May, 2020, Our Hon’ble Prime Minister Narendra Modi, addresses the nation about “AatmaNirbhar Bharat” (making India independent). As part of AatmaNirbhar Bharat, a package of about INR 20 trillion (US\$ 268 billion), which is approximately equivalent to 10% of India’s GDP, has been announced to lessen the social and economic impact arisen during the lockdown of COVID-19 pandemic. The movement of “AatmaNirbhar Bharat” helped in making improvements across all the sectors to drive country towards self-reliant. From a future perspective, it is important that we review our pre-COVID plans and work towards a “New Normal.”

In the manner the “New Normal” wave is, economy of India or any country can swipe in two extreme ways. It can either be drawn into a deep depression, or if the probable opportunities are grabbed, and the plan of action is established and effectively implemented, then the economy can fling to recovery and thus consequent development. The economic consequences of the COVID-19 pandemic have outweighed any other historical crisis. Aimed at controlling the spread of coronavirus, the lockdown was imposed throughout the world resulting into the standstill of the global economy. Over the last few eras, firms have started enhancing their supply chain by restructuring their operations across the globe through subcontracting and offshoring to different countries. Nowadays, the manufacturing firms have consolidated their manufacturing base in countries such as China, Vietnam, Taiwan, India and the Philippines as they are having low cost and also to gain the competitive advantages.

However, with the lengthening of the crisis, the supply chains have been impacted severely, both regional as well as global. COVID-19 led to lockdowns in most countries, as a result the suppliers in the supply chain temporarily ceased their production, and the transporters can no longer transport goods as seamlessly as they were used to earlier, particularly across borders. Thus, there is a need to diversify the manufacturing base and re-evaluate the supply chains globally, the trade networks need to be re-structured and the need to see a shift in the investment decisions too.

The initial pandemic outbreak in some of the major manufacturing countries has impacted all countries adversely and it has become more obvious than ever before to diversify the global manufacturing as well as supply base. This has probed consumption-driven developed economies such as the EU, Americas and Asia to rethink their business strategies, including relocating their industrial bases/operations. In addition, with the complete disruption in global supply chains, these countries are also beginning to look at other nations to mitigate risks.

It is, therefore, essential for India to grab the opportunities of:

- Standing as an investment destination which will be more attractive than others for companies who looking to shift their operations from their current geographies of operations, and
- Performing a bridge for the disturbed global supply chains as a dependable exporter of variety of product and also the service lines.

The central ministries and state governments are working persistently to resolve the broken supply chains, deprived budgets and economic recession.

However, this is a predicament situation for the governments. If the lockdown is completely lifted, there are huge chances of the spread of virus, and if the lockdown is continued, the extent of this economic recession will worsen. Thus, it is important that along with putting the efforts in developing the vaccine, governments as well as businesses undertake the industrial continuity planning more seriously.

Industry steadiness planning

Today, the situation is changing continuously and it difficult to predict that the circumstances. The restrictions may get extended in order to stop the spread of coronavirus. Therefore, it is important that the following has to be considered by the government:

- Many businesses today are facing liquidity and financial pressures. A lot of businesses and MSME's are already experiencing tremendous liquidity and financial pressure, also loan repayment defaults and bankruptcies. On 24th April 2020, one of the major assets managing firms, Franklin Templeton announced its decision to wind-up six of its schemes, this was the first casualty. Stronger corporate governance mechanisms should be established to ensure companies are transparent in declaration of their financial positions. Similarly, a closer supervision of MSMEs financial health should be adopted.
- Industry steadiness planning is important in situations which have such level of disturbances that struck without warnings, which have their affect across all the sectors, industry players and across the world. The government, therefore, need to prepare the plans to cope up with the current situation, which may persist for longer period, and also for the possible future disasters, so that there can be minimum disruption to the business environment. This planning possibly should include of human resource capacity building, acquisition of existence as well as sudden changeover of technology, preparing SOPs and creating reserves/funds in terms of finances, materials for any of such situations.
- The COVID-19 pandemic taught us how to survive with the minimum requirements of resources and at the same time the importance and necessity of planning for any uncertain situation in future. Perhaps, it is the nature's verdict for us to 'go low and slow' but undoubtedly this pandemic has given us an opportunity for - Building a better working world!

Reasons for disruption of global supply chain during COVID-19

Main reasons for the current supply chain disruptions during COVID-19 are:

1. *Absence of transparency*: The buyers and the suppliers, both have suffered because of the COVID-19 pandemic due to lack of transparency. The COVID-19 pandemic has demonstrated that when a catastrophe of this magnitude strikes, both can suffer losses due to lack of clarity. For example, if the clauses related to any disruptions have not been included means the recovery times and processes have been excluded.
2. *Lack of rearrangement of a complete supply chain*: Supply network mapping process is complex and time consuming as well as resource exhaustive and thus most businesses give less importance to it.
3. *Random resource allocation*: Different business functions such as procurement, finance, and logistics can result in to the disparity in the costs and resources.

How to handle supply chain disruption efficiently

1. *Transparency through an expertise*: A centralized system need to be established to control the operations and to handle the upcoming challenges.
2. *A single voice for the enterprise*: Stakeholders should be informed about what is happening in the organization through a single window contact.
3. *Decentralised decision making*: Specialist should make decisions at their level and their respective functions during such time of crisis.
4. *Mapping of supply chain*: Investment in mapping of supply chain is required, as it helps in managing the risk and creating the backup plan or alternatives during emergencies. Also help in being proactive in managing the customer requirements and fix and existing supply chain issues.

CONCLUSION

With the extensive outburst of COVID-19, nations across the world, are struggling to counter the bullying impact of the pandemic on the economic as well as on regional

stability, with India being no exception. The significant consequences of the coronavirus outbreak has been already witnessed by the negative impact on the economy. The worldwide production and supply chain value is disturbed due to extensive spread of the coronavirus pandemic (COVID-19). The coronavirus pandemic impacted the production, logistics as well as the supply chain system in the entire world. The COVID-19 pandemic taught us how to survive with the minimum requirements of resources and at the same time the importance and necessity of planning for any uncertain situation in future. Perhaps, it is the nature's decision for us to go slowly but undoubtedly this pandemic has given us an opportunity for - Building a better working world!

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