

Resilience Of Logistics & Supply Chain Management On Post Covid 19 Period

¹Dr. Rajeswari R., ²Naufeena Naushad

¹Assistant Professor, ²PG Scholar, 2nd M.Com Finance & Taxation

^{1,2}PG Department of Commerce

^{1,2}MES College, Erumely, Kottayam, Kerala, 686509, India.

Email - ¹rajeswaryraj@gmail.com, ²naufeena786@gmail.com

Abstract: One of the important field in the service sector of Indian economy is the logistics and supply chain management. The main aim of logistics and supply chain management is to create an effective link between the manufacturers and ultimate consumers. India was having its own best supply chain management and logistics practices than any other country as it duely focuses upon exports, imports and inland transfer of goods. Due to pandemic period this sector was in the verge of loss and was not much prominent due to the nation wide lockdown. But it is expected to rebuild the logistics and supply chain management sector of the country focusing on several prominent sectors of the economy such as FMCG and MSME. Because it is vital for the country to revive the economy in the post pandemic period. In the post pandemic period it is necessary for the developing country like India to focus the development of economy through these kind of innovative opportunities.

Key Words: Logistics & Supply Chain Management, Covid 19, FMCG, MSME, Post Covid 19, Economy.

1. INTRODUCTION:

Supply Chain Management & Logistics refers to the management of all activities relating to the flow of goods and services from the manufacturers to the end user via different methods of the logistics. It includes air cargos, train goods carrying, shipment of the product, roadways etc. Even though there exist many ways to transfer goods from the manufacturer to the customer, India mainly focuses on the methods of airways, water ways for foreign supplies and for inland supplies India focuses on both roadways and railways. Before the pandemic period the supply chain activities of India was flowing very effectively and also was very profitable both for inland and foreign customers. But during the pandemic period with the implementation of nationwide lockdown in the country the logistics and supply chain management sector faced huge drawbacks. The main sector which focused upon the logistics and supply chain management was the FMCG sector because due to its perishability it have to be transported as quickly as possible. But due to the nationwide lockdown this sector faced a big trouble as the stocks remained in the warehouses and was unable to be supplied in the economy. As like in every threat there exist an opportunity. The logistics and supply chain management can come back to the main phase of the economy after the lockdown period with mainly focusing upon the FMCG and MSME sector of the economy. As the government and individuals are mainly focusing upon this sector and is the main source of income for the economy is from the sector. The supply chain sector can revive from the present scenario of the difficulties caused by Covid 19 with proper planning and implementation of better strategies in the feasible sectors.

2. OBJECTIVES:

- To analyze the phase of logistics and supply chain management in India during 2020.
- To analyze the phase of logistics and supply chain management in India after 2020 with implementation of new technologies.

3. RESEARCH METHODOLOGY:

The data for this study are collected through secondary sources such as newspaper, magazines, journals, search engines, television news etc.

4. RESULTS & DISCUSSION:

In general trade terms, Logistics is the management of the streaming of goods and services between the point of origin and the point of deliverance or consumption so as to meet the necessities of service providers(CONSOL Agent, Freight Forwarder, IATA Agent, Custom House Agent) and consumers(Exporter and Importer). There are varieties of tangible assets that are managed in logistics, which include goods such as vehicles, machinery, electronic equipment or gadgets, furniture, etc. As well as food or other edible items. The logistics of materials

generally include the effective integration of data flow, handling of materials, production, packaging, stock, transportation, warehousing, distribution, and security.

4.1. Phase Of Logistics & Supply Chain Management In India In The Present Scenario:

The year 2020 came to India with a promise amidst a backdrop of innovation and transformation occurring at a speed never witnessed before. India is experiencing a digital revolution in terms of people's living conditions, working conditions and in social communication. The potentiality of information technology is going to inflorescence as more of the decisions are based on data and use cases for artificial intelligence are delivering significant value. Digitalization of all records and data are going to improve the efficiency and performance in freight management and port operations. Warehouse automation helps to achieve operational efficiencies to counter supply-chain cost pressures in the industry. Increased infrastructure investment, all India connectivity and emergence of innovative technologies are re-shaping the logistics sector of India.

The Impact on Supply Chain: Naturally with many countries implemented with the consequences of Covid 19, disturbances in the field of supply chain was visible in many parts of the country mainly in south India especially between Kerala and Karnataka due to closure of highways. Above all many cities had banned supply agents and other middlemen from accessing the economy in the early March and many companies implemented the work from home policies which started impacting the overall delivery percentage. Though the government authorities are trying to assist in solving the issues via with various stakeholders involved in the logistics activities mainly in the delivery of essential services, commodities. The government also got engaged with eCommerce players in B2B and procurement domains have been left stumbled. Indian Chamber of Commerce(ICC) has estimated that there will arise a loss of RS.50,000 crore for the logistics sector.

Tough Time for MSMEs:The trade in India comes down, production of goods has been lowered, the supply chain has been disrupted and markets become bearish. Among the all sectors of the economy MSME sector has affected a lot due to the prolonged lockdown in the country. As the economic activities come to a halt, MSMEs are facing various severe problems such as cash flow, low liquidity and lack of labour force. In order to cope up with the problems caused by the corona virus in the economy, RBI has announced a moratorium on the term loans, put off interest on working capital facilities and provide ease for working capital financing. Moreover that many public sector banks and Small Industries Development Bank of India(SIDBI) have introduced many emergency relief measures.All these measures have given a new scope and opportunity for the MSME sector in the Indian economy. Despite of these measures the government can take initiatives to provide help to the struggling business sectors in the economy such as delaying the MSME loan tenure, an exemption in GST, subsidized warehouse or inventory management facilities, measures to solve the problems of MSME labour workforce, enhance access to credit and defer utility and social security payments. Many studies and economists' words pointed out that even if the national lock down is again extended for a long period without taking necessary steps to solve the acute labour shortage in factories, in warehouses and in distribution where the situation is worsening, then it may lead to the straining of India's supply chain will completely fall down.

Supply Chain Management In FMCG Sector During Pandemic Period: The FMCG and other essentials producers have been most worried about the lockdown extensions in the country. Godrej Consumer Products MD Vivek Gambhir said that labour constraint is the biggest challenge for production, distribution and transportation. And also he added that they needed more support from the government to get the people back to work or else their supplies will remain to be low. Piyush Patnaik, MD of Cargill's oils business in India said that their company is running at about 30-40% of their capacity and in factories which were open are facing the restrictions regarding the number of workers and also he added that there were no stocks in the warehouse. Praveen Khandelwal, general secretary, Confederation of All India Traders and Angshu Mallick COO of Adani Wilmar too are in the opinion of Piyush Patnaik that if the lockdown is extended the supply of edible oil is being affected. India's largest biscuit manufacturer by volume, Parle, made a statement that they are producing biscuits today with only 15% of its labour force due to lockdown. Products category head Mayank Shah commented that when they increase their capacity utilization for production from 10-15% to about 25%, they have to improve the logistics too. In such a situation they have to give major concern towards the labour front. He also said that the situation will not improve until trains and buses start operation in the country. Amazon India had made a blog saying that, to serve their customers' most urgent needs while also ensuring safety of their employees, they were temporarily prioritizing their available fulfillment and logistics capacity to arrange and sell those products which are currently most essential for their customers such as household staples, packaged foods, healthcare, hygiene, personal safety and other high priority items. And they also added that those words means that they are temporarily stopping their business, taking orders from the customers and disable shipment for low priority items. For several days the company had stopped their online business and also it added that it would be reaching the customers to give them an opportunity to cancel their low priority orders and get a refund and it came into effect from March 24, 2020.But many FMCG giants such as Britannia, Parle, PepsiCo, Hindustan Unilever, Dabur, Coca-Cola, ITC, Nestle and Mondelez have been written to the government through three separate

industry bodies to exempt them from the movement restrictions. Many reputed news papers have been reported that the companies that supply meat, milk and household staples are facing major problems to redirect the sprawling food supply chain to meet the challenges in demand after the government imposing the lockdown due to the pandemic.

E- pharmacies too are facing the problem of supply chain issues and are working with relevant industries to get things up and running. This lock down has sent the existing supply chains of the companies across sectors into a tizzy. But both the government and companies are trying to make sure that the operations are smooth, the end users are facing uncertain deliveries and also the country's logistic will become normal soon. During this pandemic time, E-commerce and E-grocery players are also imparting contact less deliveries and cashless transactions in the economy to ensure safety of both delivery executive and the customer. CNBC-TV 18 reported that consumer goods companies are expecting issues around supply, logistics to ease during the second half of the lock down. Beverage companies, FMCG firms and hygiene product manufacturers have a faith that the problems will get rid off from the economy and everything will get better and also they believe that due to proper handling of transportation and production problems by central and state government helps to solve the troubles. Companies are focusing on the production of mass products and cut short the production of premium product. Nowadays companies are directly working with the retailers to transport the products to the customers. Also all the companies are being working on medium to long term plan to introduce innovation in supply chain and warehousing.

4.2. Supply Chain Management In India After Covid 19:

Due to the impact of the pandemic Covid 19, India's supply chain will have to go for a huge transformations in the next few years. As the pandemic poses a challenge toward the demand and supply frameworks of the logistic management. Due to this widespread pandemic the supply chains had broken or severely affected from it. As far as the supply issues are concerned, we can see that there is diminution in the demand for several industries. So it is the duty of the organizations to adjust with the reality and are supposed to consider the following thoughts to rebuild the supply chain. The first and foremost important change will be localizing the supply chain by making domestic sourcing. As we have seen that during the earlier stage of the pandemic period, India had depended mostly on China for APIs even though India being a large exporter of pharmaceutical products. By considering these situations the government policies also promote the development of these kind of products in the domestic market which will thus results in meeting the domestic demand and also to meet the demands in the export markets too. During the pandemic period it was seen that the cargos lie unsold in the warehouses in different parts of the country as the only way to move those goods are through airways and by shipway. But when the government uses multi modal transport including a combination air, water, rail and road will help the country to gain dominance in the globe. This too helps in the inter state transfer of goods.

Another major observation during the crisis was that most companies are operating their supply chains just in time with limited pipeline stock and were unable to provide products when it is demanded urgently. Risk management and mitigation will gain importance in supply chains will help to build more safety stock in their distribution pipelines and thus it will leads to an increase in more warehousing space across networks. Every entity engaged in running supply chains would need to go through severe compliances as worker, product, transport and facility sanitization protocols would have to be in place. This would increase both management and insurance costs. It is sure that the supply chains will have to go for a massive change after the pandemic period in terms of planning, execution, labour force, production, distribution etc may be digitized and repurposed. As far as India is concerned, there will be a chance for long horizon transformation to be accelerated and perhaps ignore a generation of gradual improvements.

The new normal: The economic impacts of the pandemic are to be felt and also many economists are predicting that there will be deep recession of unknown length in the economy. The supply chain managers can avoid one pitfall and can move forward is the dynamic called the inventory bounce. The economic impacts are beginning to be felt, and many economists are predicting a deep recession of unknown length. Ten years ago, during the last major recession the inventory bounce fooled certain upstream supply chains and make them feel that the demand was up bounding. Then the bounce became amplified and bullwhip effect kicked the economies. As a result havoc and distress prevailed everywhere.

Opportunity In The Threat: Due to the pandemic of Covid 19 the supply chain footprint has been shrinked. This will accelerate companies to seek a different cost or resilience trade off and note to localize the production and sourcing. This shrinking in supply chain helps the company to step up and contribute to the economy more products and services. Also the companies focusing on a particular brand can step up and can repurpose their production facilities for the production of new products which are demanded during the Covid 19 era. For example LVMH, L'Oreal, and Coty and other companies stepped up and repurposed production facilities intended for beauty and hair care products in order to produce hand sanitizers. This will help to keep the workers on and provide facilities operating despite of difficult economic conditions. -automated, completely automated or a mix, depending on the varying situations

A unique moment: The supply chain are keeping singular resource and adptability, though the challenges are far from over. But the result may be fundamental changes and a whole group of managers and regulators find it second-time to rethink global models and supply dependencies. Supply Chain Management includes many activities which are needed to plan, execute and to control the flow of goods including purchase of raw materials, manufacturing through distribution to the end customer flawlessly and cost-effectively. As it is known that raw materials and final goods have to move across multiple manufacturers, distributors, transporters and service providers in different geographical areas. So it is necessary for the businesses to keep aware about the trading companies involved in the supply chain and should trust them. But today's reality is quite different so the business can adopt many innovative ways to overcome these issues. Now we discuss about certain strategies which can be adopted in the Indian supply chain in order to rebuild the system after pandemic period.

- **Artificial Intelligence:**

Artificial Intelligence makes a wider vision for organization to make supply chain automation. This automation can be of any level as semi. The implementation of AI in supply chain helps to match the human knowledge with the machine intelligence. It will thus improves the company's performance such as optimizing order delivery process and service levels with AI. Through the implementation of AI the companies engaged in supply chain in India is able to know the best route a company should take improve delivery efficiencies and replacement. It uses deep algorithms to keep alert the users about the major equipment failure before it happens.

- **IoT (Internet of Things):**

One of the new innovation in the supply chain management is Internet of Things. Availability of reasonable and reliable sensors, the huge increase in data storage and processing capabilities and the arrival of AI are the main factors behind the popularity of IoT. It is being now accepted by many supply chain domains but it is hardly a part of end-to-end supply chain process. It helps the supply chain domains to utilize their asset properly, greater up time, enhanced customer service, improved supply availability, provides transparency in supply chain, end-to-end supply chain performance and reliability. After the pandemic period many supply chain companies uses IoT to improve their supply networks, minimize costs and get the opportunities to generate more revenues.

- **Advanced Analytics:**

After the post pandemic it is very important to perform collection of analytics and supply chain analysis of data regarding the supply chain. Supply chain analysis helps the companies by providing them with the ability to enrich their products, operations as well as services, use better marketing campaigns, hiring practices and many more. Advanced analytics is of very importance because it can be used for both internal and external evaluation of the firm and also it helps the firm to monitor its vendors, employees and productivity. Supply chain analysis also helps the firm by monitoring the entire operations of the firm starting from the procurement of raw material to the delivery of end product. It also helps the firm to analyse the current environment to know the future environment and provides accurate recommendations to the firm.

- **Robotic Process Automation (RPA):**

One of the new innovation implemented in many fields is Robotics. This robotics can also be used in supply chain management too mainly to build value to different B2B initiatives. It doesn't means the application of actual robot to perform the job, instead we are using softwares to automate the processes. Application of RPA in supply chain after the post pandemic period will enable the supply chain activities in India to reduce the cost of companies accrued on online truck booking, helps in logistics, eliminate inputting errors, boost processes and link the applications. It also provides the business with automated data integration and also helps to earn a strong return on investment(ROI).

- **Social Media in Supply Chain Management**

From several years back onwards supply chain management is using mobile technology to deliver their products to the end customers. Use of social media accounts by various firms in their supply chain management by providing effective advertising campaigns boost effectiveness in supply chain management. The consumers using social media accounts share both positive as well as negative information about the product which creates a direct impact on the goodwill of the business. On the post pandemic period the logistics companies can use the social media accounts to connect with their customers and to recover their business efficiently. And for the same they have to go beyond the standard online or app –based shopping experience.

- **Role of Blockchain in Supply Chain:**

Like robotics and AI another one such innovation is the block chain. It aids the business to protect whole data and informations from being hacked, manipulated or edited. Blockchain has been developed with the purpose of dealing with critical and long lasting challenges across different phases of supply chain. Earlier the supply chain uses centralized authority models but with the implementation of block chain the model of supply chain can be decentralized. With the implementation of block chain in the supply chain after Covid 19 involve a collection of expertise and processes that spans analytics, database, security, verification and contractual and identity management ideas.

- **Digital Supply Chain Twin:**

Digital twin means the illustration of a real world system and supply chain. Digital supply twin is actually a digital representation of relationships among all the important parties of an end-to-end supply chains such as goods, consumers, markets, warehouses, distribution center, plants, payments, attributes and weather. It is very effective to use digital supply chain to innovate the business after the Covid 19 as they can improve the quality and speed of the decisions and also improves situational consciousness.

- **Omni Channel Supply Chains Will Become Standard:**

Omni channel is of great useful to the supply chain after the Covid 19. By adopting Omni channel strategies the firm is able to avoid discrepancies and is able to differentiate systems and creating an organized way of shopping experience for customers. It helps the customers to get a single stream item which shows a big difference in the basic principle via which the supply chain functions.

- **Business Events Will Gain The Popularity**

After the Covid 19, the business events and system events will gain power in the supply chain world. Business event shows the direction of business. Business event can be either internal or external but both have an equal impact on the business. For example the events like discussion regarding the credit limit of a customer being exceeded. Such events can directly influence the equity, assets or liability of a business account.

- **Immersive Experience**

The user experience in the digital world will depend upon the way in which the customers perceive it and interact with it. The integration of both Augmented Reality (AR) and Virtual Reality (VR) and with multiple mobile, IoT, sensor enabled environments and interactive platforms will propagate applications beyond inaccessible and single person experiences.

5. FINDINGS & SUGGESTIONS:

The major findings of the study are:

- During the pandemic period the logistics and supply chain management of the country have been stopped for a while due to the complete lockdown in the country.
- The MSME and FMCG sector have been facing severe problems due to the lockdown prevailing in the country.

The major suggestions of the study are:

- ✓ Loss arised due to the stoppage of logistics and supply chain management in the country it can be rebuild through engaging in more exports and through attracting more foreign investments in the country.
- ✓ The government should help the FMCG and MSME sector through proper finance channelising and better integration of various systems of the country.

6. CONCLUSION:

As we have seen that the logistics and supply chain management sector of the economy is one of the major sector of the nation. All the trade activities both national and international depends upon the logistic movement. Any defect in the chain of logistics movement makes the firm to loss the revenues which may adversely affect the existence of the firm in the economy. The pandemic of Covid 19 has affected all the sectors of the economy all over the world. It created economic crisis in India which leads to the need for rebooting the supply chain and logistics management.

REFERENCES:

Web References:

- <https://home.kpmg/au/en/home/insights/2020/03/coronavirus-covid-19-actions-for-supply-chain-leaders.html>
- <https://www.blumeglobal.com/learning/supply-chain-challenges/>
- https://www.logisticsmgmt.com/article/top_8_logistics_challenges_facing_the_industry
- <https://www.marketsandmarkets.com/Market-Reports/covid-19-impact-on-logistics-supply-chain-industry-market-244593137.html>
- <https://www.google.co.in/amp/s/www.supplychaindigital.com/logistics/top-three-challenges-logistics-2020%3famp>
- <https://www.prnewswire.com/news-releases/covid-19-impact-on-logistic--supply-chain-industry-market-by-industry-verticals-mode-of-transport-region---global-forecast-to-2021-301056488.html>
- <https://www.entrepreneur.com/article/349420>
- <https://www.imd.org/research-knowledge/articles/supply-chains-adapting-to-covid-19/>
- <https://www.supplychaindetail.com/technology/manhattan-associates-innovative-supply-chain-solutions>
- <https://yourstory.com/mystory/7-main-challenges-in-supply-chain-management-and-h-rdq2oy6mh9>