

# **“IMPACT OF COVID-19 ON LOGISTICS WITH REFERENCE TO J M BAXI GROUP”**

## **PROJECT REPORT**

*Submitted to the Indian Maritime University, in partial fulfilment of the  
requirements for the award of degree*

### **Master of Business Administration**

(International Transportation & Logistics Management)

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Submitted by

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Year 2019-2021

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## **DECLARATION**

I hereby declare that this submission is my own work and that to the best of my knowledge and belief and also this report has not been submitted in full or part thereof, to any other University or institution for award of any degree or diploma.

The report is submitted to Indian Maritime University, Cochin in partial fulfilment of the requirement for the award of MASTER OF BUSINESS ADMINISTRATION (INTERNATIONAL TRANSPORTATION AND LOGISTICS MANAGEMENT) during the academic year 2019-2021.

All the information in this document has been obtained to use only for academic purpose and conducted under the guidance of Dr. JAYAN P.A.

**Place: COCHIN**

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## **CERTIFICATE**

This is to certify that, this project titled **“IMPACT OF COVID-19 ON LOGISTICS WITH REFERENCE TO J M BAXI GROUP”** submitted to **School of Maritime Management, Indian Maritime University, Cochin Campus** by **“ABHINAV C K”** for the partial fulfilment of the requirements for the award of the degree of **MASTER OF BUSINESS ADMINISTRATION IN INTERNATIONAL TRANSPORTATION AND LOGISTICS MANAGEMENT** is a bonafide record of work carried out by ‘his/her’ under my guidance.

**DATE: 29/06/2020**

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It gives me immense pleasure to thank all those who supported me for the completion of the project. I wish to express my sincere gratitude to my mentor and project guide Dr. JAYAN P.A, Head of department, Indian Maritime University Kochi, his guide for helping me to conceive the idea of this report. I thank him from the bottom of my heart for helping me in completion of the report and also my sincere thanks to all other faculties of SMM.

I perceive this opportunity as a big milestone in my career. I will strive to use gained skills and knowledge in the best possible way. Finally I thank all my family and friends for the support in completing the project report.

**ABHINAV C K**

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## **EXECUTIVE SUMMARY**

Following is a project report successfully completed as a part of my MBA at Indian Maritime University, Cochin. The report was on the topic “Impact Of Covid-19 On Logistics With Reference To J M BAXI Group”. The topic covers the importance of logistics in today’s world, the impact of Covid-19 on logistics sector, how it affected the Indian economy. The topic gives an insight of the future scope of logistics. The topic is explained by giving a special reference to India’s leading ship agency J M BAXI & Co. Further the report consists of various methods adopted and problems faced by the company during covid times.

Founded in 1916, J. M. BAXI & Co is India’s premier ship agency, serving tramp and container vessels and finding maritime carriage solutions for all types of cargo. It is backed by over 600 experienced and committed professionals working from a nationwide network of offices in over 50 locations. J. M. BAXI & Co is the only ship agent in the world that does not subcontract out its core business.

The logistics sector is a vital link binding suppliers, markets, business areas like supply chain management, warehousing, packaging, and material handling and customs services in various parts of the country. It is responsible for the massive contribution to the national economy as it creates opportunities for employment and generates foreign investment influx. Though the current Covid-19 pandemic has brought a blow to the business world and has put it on a standstill, the logistics industry has still managed to be on the frontline since the beginning of the unprecedented crisis, and has significantly taken care not to get the supply chains disrupted.

# **CHAPTER 1**

## **INTRODUCTION**

## **1.1 INTRODUCTION**

### **The Role of Logistics**

Today's economy is the result of a massive contribution by logistics wherein many companies are dependent upon logistics and transport in order to keep their business going. Today there are companies with excellent infrastructure with good record keeping which are improving due to advanced technology. With the passage of time, there has been an increase in the importance of logistics. This has actually turned out to be beneficial as certain facilities like warehousing have been brought nearer to large cities and towns. Logistics has therefore brought more job opportunities to towns and cities and thus has affected the businesses in these areas. Logistics has secured a place as a significant part of the supply chain. The forward and reverse flow of goods and services in a business origin to recipient is controlled by the logistics. This implies the fact that logistics has an outstanding impact on the transport and shipment of goods and can instantly get to the consumer which thereby gets set again through an additional and a competitive edge to all the other businesses involved.

Logistics is the procedure of managing or transporting goods from the point of origin to the point of consumption so as to meet the customer's requirements. In other words, it is all about transporting the right product, to the right customer, in the right condition and in the right quantity and at the right place, at the right time and at the right cost.

The trivial success of any business or the economy of the country in the global markets is also largely dependent on the importance of trade logistics solutions.

## **1.2 RESEARCH AIM**

The thesis aims to gain insight on the logistics sector and how it got affected by the pandemic since 2020. Logistics plays an important role in transiting goods and services across nations. By the beginning of 2020, the Covid-19 struck all over the world, leaving all sectors in a crucial and difficult situation. This project is focusing on those factors and situation happened on logistics sector and also by giving a reference to the India's leading tramp agency J M BAXI. It also examines the ways in which how the logistics sector is striving in Covid times.

## **1.3 RESEARCH OBJECTIVE**

- To gain insight on logistics sector and the importance of it in today's world.
- To gain knowledge on the impact of Covid-19 on logistics sector.
- To examine the activities of tramp agency J M BAXI in Covid times and how the company is coping with it.
- To gain insight on the logistics division of J M BAXI & CO.
- To investigate the future potential of logistics sector in the economy.

## **1.4 LITERATURE REVIEW**

### **Logistics & Supply Chain Management**

**By Martin Christopher**

**4<sup>th</sup> Edition, 2011**

This book focuses firstly on the area that logistics plays an important role in creating competitive advantage. The emphasis on value creation and delivery has given much more of a strategic focus. The next area of focus is on the understanding that supply chain management is not just an extension of logistics management, but rather that it is about managing relationships across the complex networks that today's supply chains have become. The book also gives insights about the business environment that has become a lot more volatile and hence unpredictable. Supply chain is needed to meet the changed situations which are the transition from a relatively stable world to one that is much more. The book gives the actual definition to the logistics, "Logistics is the process of strategically managing the procurement, movement and storage of materials, parts and finished inventory (and the related information flows) through the organization and its marketing channels in such a way that current and future profitability are maximized through the cost-effective fulfillment of orders."

### **The Logistics Sector in India: Overview and Challenges**

**By Pankaj Chandra, Nimit Jain**

**2007**

This paper explains on logistics industry in India and that it is evolving rapidly and is the interplay of infrastructure, technology and new types of service providers that will define whether the industry is able to help its customers

reduce their logistics costs and provide effective services. The important role that plays in the process is that changing government policies on taxation and regulation of service providers. Coordination across various government agencies requires approval from multiple ministries and is a road block for multi modal transport in India. At the firm level, the focus of logistics is to reduce cycle times in order to add value to their customers. For doing that better tools and strategies are being adapted by firms in order to enhance the decision making. This research paper by Pankaj Chandra and Nimit Jain provides a perspective on these issues, outline some of the key challenges and describe some interesting initiatives that some firms & industries are taking to compete through excellence in managing their logistics.

## **Indian Logistics**

**By Alok Deshpande**

**2018**

This report by Alok Deshpande estimates a confluence of favorable factors— GST tailwinds, reducing transit times, warehouse consolidation, infrastructure standing and fast adoption of technology to drive sector growth to 12-13%. Nearly one-third of India's logistics costs are transport and storage related inefficiencies. It's expected that these inefficiencies to scale back in returning years, which can boost logistics spending. Dominance of road transport, despite being the most expensive mode is probably going to sustain due to expanding road infrastructure. The logistics sector, though very large at USD220 billion plus, is highly inefficient. However, now the sector is ripe for transformation with the recent regulatory reforms such as GST, e-way bill, grant of infrastructure status and a new dedicated Department of Logistics. Rapid adoption of technology is further aiding this change. In addition, certain niche categories within the sector are proving to be significantly more structural than

others and these smaller pockets can continue to be large value creators. In this report, the endeavor is identifying these niche themes, winning business models and the best stock plays on these structural growth opportunities.

### **Impact of COVID-19 on logistics systems**

**By Manoj Kumar Tiwari**

**Volume 59, 2021- issue 7**

In this journal several prominent studies on risk prediction and uncertainty in supply chain are discussed that have been conducted during the pandemic. The journal points out that some researchers have introduced some significant model-based studies to tackle COVID-19 problems. Lockdown cannot be considered as a permanent solution for a long-run from an economic and social perspective, especially when a large segment of the population is dependent on daily wages for sustenance. The journal gives the details on logistics mitigation strategies during a pandemic. During a lockdown all the nonessential travels across the nation and internationally were prohibited throughout the world to restrain the spread of COVID-19, and such travel restrictions have badly affected the aviation sector. Aviation sector contributes USD seventy billion within the country's GDP and an initial estimation of 25% which will impact fifty million staff.

### **Impact of Covid-19 on trucking and Logistics Sector**

**By Rajesh Yabaji**

**2020**

This article is on Covid impact on trucking and logistics sectors. It explains pre Covid and current situation in this sector and the importance of logistics in India. Over 8 million people in India are logistics employs which shows a

leading indicator of the overall health of the economy. During the early stages of an economic rise, customers begin to ship more goods in prediction that of stronger business conditions. Conversely, a decrease in logistics demand may show the starting stage of an economic slump. Therefore, logistics has a strong relationship with the key economic indicators such as Inflation, GDP and Unemployment. The months before the pandemic were stable, except for a minor drop in the volume of shipments during the end of 2019. This was largely due to the economic slowdown that India was experiencing on the backdrop of weak global business sentiment, the China-US trade tensions, and demonetization. The industry serves as an umbrella to the key business areas like material handling, warehousing, packaging, shipping security, inventory management, supply chain management, procurement, and customs service, while transportation stands to be the backbone of logistics. In this article it gives details about strongest impact of COVID-19 which was seen on the 2nd or 3rd day of the lockdown. This happened due to the fall down of trucks movement by 90% – 95

## **The Impact of COVID-19 on Logistics**

**By Ian Twinn of IFC**

**2020**

This article explains about the logistics sector and how third party logistics can make a change here. The article gives insights about the logistics companies which connect firms to markets by providing various services, including multimodal transportation, freight forwarding, warehousing, and inventory management. These firms are important for worldwide manufacturing, which is complex and multilocational. In this article it shows today's global value chains, which require greater resilience and efficiencies in the flow of goods between

countries. The way in which these can be achieved is by firms giving their logistics functions to third-party logistics services providers, especially those with integrated, end-to-end solutions capabilities. The percentage measure of cost of logistics in GDP can be up to 25% in some developing economies as compared to 6–8 percent in OECD countries. Better efficiency in the sector can therefore, boost competitiveness and improve economic growth in emerging business markets.

## **1.5 HYPOTHESIS**

Logistics companies that are concerned within the movement, storage, and flow of products are directly stricken by the COVID-19 pandemic. As an integral part of value chains each at intervals and across international borders, provision companies facilitate trade and commerce and facilitate businesses get their merchandise to customers. Supply chain disruptions to the world caused by the pandemic might so impact competitiveness, economic process, and job creation. As of now the logistics sector of India is coping with the effect of pandemic and is at the point of moving forward. My assumption is that India is slowly on the path to achieve its dream of becoming an economic and logistical powerhouse with more and more investment in infrastructure and operational efficiency.

## **1.6 SCOPE AND COVERAGE**

The study helps in gaining knowledge on the logistics sector. Also helps to understand the current situation of the sector as of from the Covid impact and future scope of the same. The study gives insight on pre-covid era of logistics. The study is specially related to the logistics division of J M BAXI & Co.

J. M. BAXI & Co, India's premier ship agency, was founded in 1916 which has been efficiently serving tramp and container vessels, succeeding in finding maritime carriage solutions for all types of cargo. It has around 600 proficient and committed professionals in diverse 50 locations nationwide. This company is the only ship agent in the world that does not subcontract out its core business.

## **1.7 LIMITATION OF THE STUDY**

Due to the pandemic COVID-19, the study for the research project was limited. The data and many more areas of the research are limited. An analysis based on the survey is not possible due the pandemic and all the data is limited to secondary data.

## **1.8 METHODOLOGY**

**“Research methodology”** means the science behind contemplating how research is done in a scientific approach. It opts for systematically and logically solving a problem, by helping us understands the process, and not focussing just on the product of research. Instead, it rather analyses methods along with the information obtained by them”.

Methodology is the way in which problems are approached and seeking answers for it. To choose the methodology for a research, it is shaped by the assumptions, purposes and interests.

Research could be a systematic investigation and manipulation of the variables to grasp the procedures that occur in specific contexts and to spot the associations. Research can even be outlined as a collection of procedures that turn out the data of associations and processes of interests. Research is

essentially targeted on the advancement of data which will have application to sensible issues. Researchers typically work on existing resources to advance the data. The research develops the data existing to form new data.

## **1.9 RESEARCH TECHNIQUES AND CHOICES**

The research technique describes the tools and instruments to collect data for the research. There is a choice for quantitative research, qualitative research or the mixed methods which has to be defined before finalizing the techniques. Quantitative information is based on the numerical facts and quantified information. In contrast the qualitative information is based on non-numerical facts.

### **1.9.1 TIME HORIZONS**

In the research model the time horizons include two divisions, which are cross-sectional and longitudinal study based on the time required. The cross-sectional studies are those which are conducted for a predetermined period of time. Whereas the longitudinal study are those which are conducted for a long period of time. This study adopts cross-sectional approach as the research has been given a limited time.

### **1.9.2 DATA COLLECTION**

The theoretical viewpoint and methodology are significant in this thesis, to collect information that enhances to find high value outcomes. The data gathering is significant in a thesis, as the quality of data can influence the

understanding of the theoretical framework. The information collected can be primary and secondary or both. In this study secondary data is used.

### **SECONDARY DATA:**

It is collected by referring to brochures, numerous documents of the company as well as valuable and reliable data from internet, which can be either from published or an unpublished source which are likely to be as follows:

- Magazines and journals
- Corporate Brochures
- Printed materials
- Websites
- Books related to the topic

This type of data includes raw information as well as published summaries. Certain types of researches those compare the national and international situations probably require secondary data as the main source. Secondary information may include quantitative and qualitative information, which are principally used for the descriptive and explanatory researches.

For the purpose of this research data were gathered from journal articles, books, online newspapers, websites etc. The articles were obtained from sites related to logistics, Covid-19, J M BAXI from the internet. The main keyword used for online search includes logistics and Covid, J M BAXI and Covid.

### **1.10 RESEARCH STRUCTURE**

The report is comprises of five chapters. The first chapter is about the introduction to the topic, research aim and objectives, the structure of the report,

methodology, limitations, and literature review. The second chapter covers more on the center topic which is the impact of Covid-19 and how it affected on logistics sector.

Chapter three focus on the overview of the company J M BAXI and its logistics division. Chapter four gives insights about Covid times of the company, the activities and measures taken to overcome it. Chapter five covers the final findings, conclusion, references etc.

## **CHAPTER 2**

# **IMPACT OF COVID-19 ON LOGISTICS** **SECTOR**

## **2.1 LOGISTICS SECTOR - PRE-COVID TIMES**

The logistics industry in India is rapidly evolving and it is the combination of infrastructure with technology and certain new types of service providers which can always define if the industry is able to satisfactorily reduce the customer's logistics costs and helps to provide some effective services. By changing some of the government policies regarding the taxation and by the effective regulation of service providers play an important role in this process. There has to be coordination across various government agencies which require approval from various ministries and thus it becomes a road block for a large number of multi-modal transports in India. At the firm level, the logistics focus is rapidly moving towards the task of reducing cycle times so that can add some value to their customers. Consequently, as a result of this there have been some better tools and strategies being sought by these firms in order to enhance their decision making in these fields.

With the passage of time, the industrial world definition and the global market keep evolving continuously. The value of the Indian logistics Industry in 2019 is around \$160 Billion. This increased growth is due to the increased number of all e-commerce retailers and also due to their stellar services to all the citizens of the country. People are being dependent on such e-commerce for their needs and by the year 2020, there will be a huge online shopping market for the logistics industry.

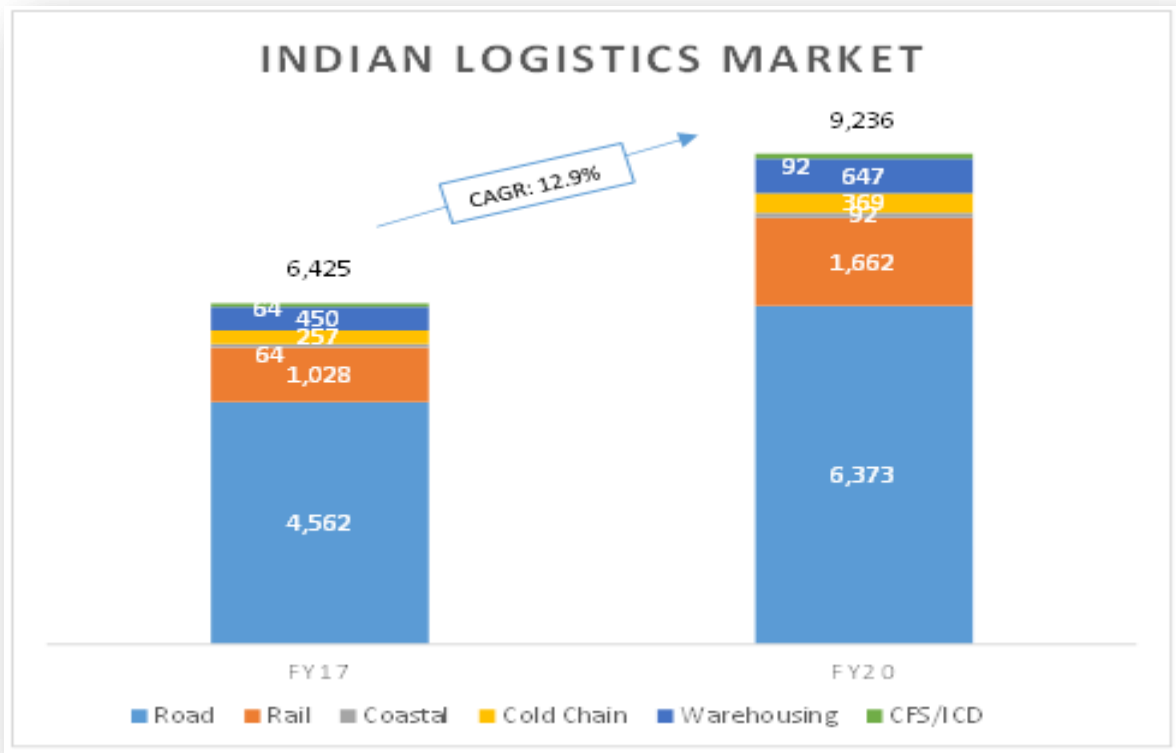
There are areas needing a review and improvement and there are ideas in order to improve the logistics industry in India which revolve around reducing the vital costs of logistics for all customers and that too while providing some top-notch services within the given budget and this is one of the constantly faced challenges that the Indian logistics industry is facing. By increasing the

affordability, it encourages corporations to heavily invest in such logistics services through third party logistics. Because of a constant lack of proper storage and by stockpiling training, this has also been experienced in the logistics industry. By all such companies establishing training and the rapid development centers, the industry has created trained professionals who are meant for the logistics industry rather than simply employing some semi-skilled or skilled labor.

By allotting some trained personnel in order to monitor some automatic stockpiling, proper storage and certain cargo safety increases the profits since the losses will marginally be cut down. Also by creating an inventory stock portfolio, and through stock removal and an effective maintenance system, there are chances that certainly the Indian logistics industry in 2019 gained efficiency in the cost-cutting for more retained earnings.

Logistics companies connect these firms to markets by providing various services, which are including this multimodal transportation, and freight forwarding with warehousing, and some inventory management. They are important for the worldwide global manufacturing, which is complicated and multilocational as well. As a result of this, today's global value chains require a greater resilience and efficiency and thus maintenance in the flow of goods between and within countries is impacted. These can be achieved by the firms who keep outsourcing their logistics functions to some of the third-party logistics services providers, and especially those who are with integrated, and end-to-end solutions capabilities in that particular field. The cordial relationship between these logistics performance and the concerned higher incomes demonstrates the sector's contribution to a higher productivity and a much sustainable economic development. Also by achieving better efficiency in the sector it can therefore, boost and hike the competitiveness and thereby stimulate the economic growth in the emerging markets. The year 2019 had already put

the focus on the last mile. With many large horizontal players partnering with some last-mile augmentation partners who provide this manpower for efficiently running such delivery centre operations and some last-mile delivery services. This has thus somewhat reduced their cost of hiring manpower.



(Figure 1: Logistics market 2017-20)

With the transportation industry becoming more technology-driven and great efforts being undertaken towards their sustainability, these global passenger demands has been on the rise both in mature and some emerging markets, wherein the population has been becoming very increasingly affluent and also mobile. In the terms of cargo transportation, these kinds of trade relations between countries are being forecast to drive up the traffic demand over the coming years. While cargo aircraft are often used to transport mail, animals, and dangerous items, also the bulk products are typically carried by these railways, trucks, and the ships. Also In the logistics industry, the intermodal freight

traffic is the most commonly chosen method to move consumer goods, and as freight that is shipped in containers which can easily be moved interchangeably by means of trucks, railroads, and certain containerships. Although depending on the weight, volume, as well as the destination of goods, these said cargo can be moved by land, air, or water preferably. It could be thus said that the logistics industry is the sustaining backbone of the global economy. Starting right from the dawn of the industrial revolution, these firms have generated an increasing bulk demand for the easy and safe transportation of manufactured products, and thus ending up acting as a vital means to modern economic coordination and growth.

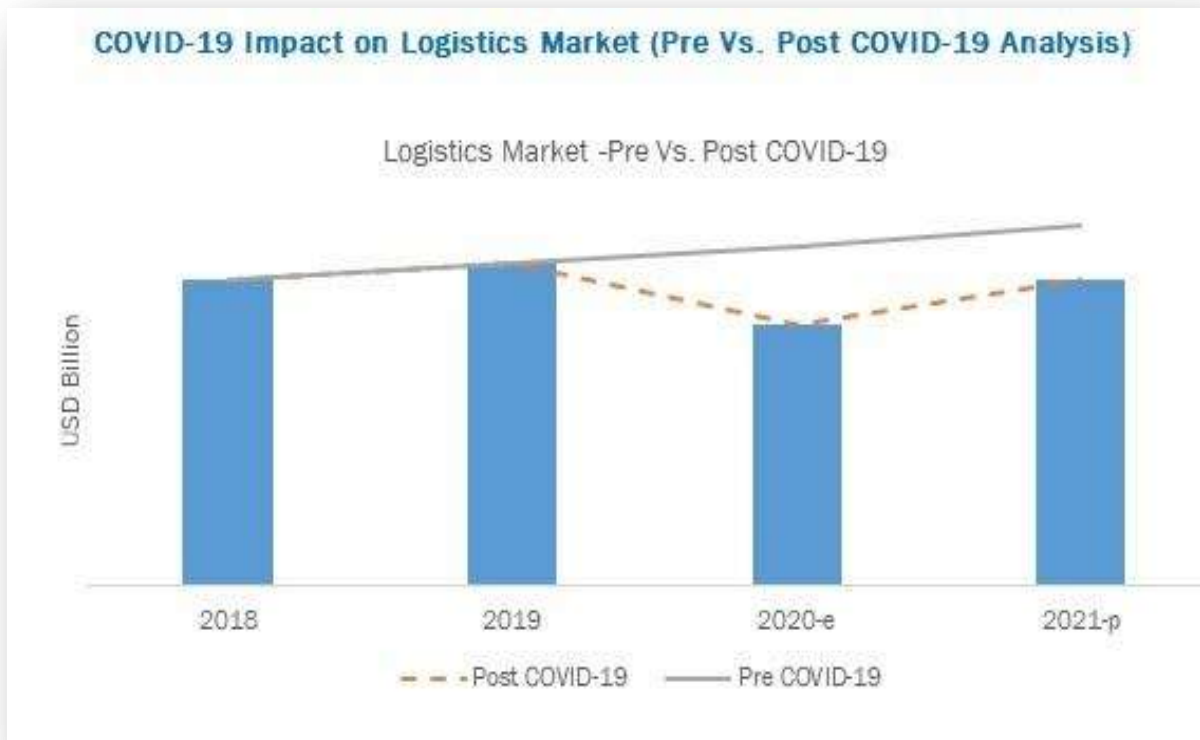
## **2.2 LOGISTICS SECTOR DURING COVID TIMES**

The logistics sector has been on the frontline since the beginning of the unprecedented crisis, ensuring supply of essential goods remains intact. From the early days of the lockdown, most if not all logistics facilities have remained operational and after some initial hiccups, road transportation also continued as before. While there was a sharp fall in freight availability due to restrictions on production of non-essential goods, at the same time logistics services were crucial for the distribution of many essential items. Warehousing demand shot up for products where manufacturers were unable to take delivery of raw materials in the pipeline. Most of the logistics industry functioned with energy and readiness to the challenges of Covid, balancing the peaks and drops in demand while protecting its staff and customers.

The impact of COVID-19 was first felt in China because of the role it plays in global manufacturing. China has also become a major consumer of these global commodities and a large number of agricultural products. Disruptions to such manufacturing in China has rippled through global supply chains and even

affected the transport. Cargo had got backlogged at China's major container ports with travel restrictions which led to a shortage of truck drivers to pick up these containers, and a certain number of ocean carriers had cancelled (or blanked) sailings. The resulting shortage of such components from China had impacted the manufacturing operations overseas. Some major industries around the world, including most of the automotive, medical equipment, electronics, with pharmaceuticals, and supplies, as well as consumer goods, were deeply affected.

The pandemic has spread to the rest of the world thus leading to lockdowns and severe border closures that had thus restricted the movement of goods everywhere. Also additional protocols (such as social distancing at warehouses) have been introduced to ensure the safety of workers, contributing to bottlenecks for freight. In India, the lockdown created a whopping shortage of truck drivers, and thus resulted in over 50,000 containers piling up in the ports of Kamarajar ,Chennai and Kattupalli. India is thus facing innumerable challenges amid its own country-wide lockdown like: labor shortages, manufacturing slowdown cargo capacity challenges, order delays and with stuck shipments, and demand and supply shocks. India's real gross domestic product (GDP) is at its lowest in 6 years currently because of the COVID-19 standstill that is adversely affecting consumption and its investment in the Indian economy. The manufacturing halt has reduced this demand for logistics services, which likely has resulted in the downward pressure on prices across this kind of warehousing, freight, and also logistics. With countries around the world starting to impose lockdowns there has been a minimal export-import movement which has been amplified in the crisis in the logistics space.



(Figure 2: Covid-19 impact analysis 2018-21)

## 2.2.1 CHALLENGES FACED

The logistics industry is working really hard to catch up with the demand and supply that's being terribly affected by COVID-19. But with the spread of this deadly virus in almost every industry, everywhere is now being affected. Whether it's regarding the raw inbound goods, at a manufacturing level or in a distribution level, everybody is now currently experiencing a pain point in their supply chain.

The situation is less critical comparatively for cargo movement that occurs within a given state, while some inter-state movements which remain more challenging due to a big drop in Imports from some other countries. This intra-movement of goods is also limited as the drivers are becoming reluctant towards operating on roads.

Aviation has turned out to be one of the worst-affected segments. The Indian government has readily suspended almost all the passenger flights and thus only allowed the movement of these cargo flights. These air carriers prioritize transportation of such essential cargo and certain critical pharma/medical equipment. These kinds of staff shortages and such delays in the clearance of cargo have always resulted in a lot of congestion at airports. This restriction of air travel and such international flights globally has very much contributed to the slowdown in the movement of goods, and thus India's lockdown has always brought first and the last-mile transportation alongside intermodal movement of goods to a blurry standstill.

This reduction in the vessel capacity and such equipment shortages related to these disruptions has had a major impact on the intra-Asia trade lanes. A large drop in the freight volumes has also prompted major carriers to report the service cancellations and these delays, and some blank sailings to and from India and the countries like Middle East, Europe, and the Mediterranean. Vessels are quarantined and are not allowed to board at near ports. Containers are stuck up at ports due to lack of labors, drivers & trailers. CHA/FF activities are heavily hampered due to unavailability of these government & port authorities. The inter-plant or some short distance transport movement of raw materials is a bit limited owing to manpower issues. Many such plants are shutting down their operations due to the limited supply of raw materials and scarcity of labors and safety of workers.

Roadways and railways are somewhat relatively less affected by the COVID-19's impact on the logistics sector when compared with the airways and waterways. Due to these heavy restrictions on the international transport, the roadways and railways have emerged to be highly important to maintain the optimum supply chain, especially for essential commodities. Being the preferred mode of transportation for essential goods, this road transport is

heavily relied upon for the continued supply of food, medicine, and other essential products.

**The impacts on freight capacity in three key global transportation segments: ocean, land, and air**

- **Ocean freight:** Total container volumes handled via water has dropped by 10.1 percent in the first several months of 2020. Some of the agility Logistics reports certain considerable constraints to this ocean freight around the world, which thereby has been impacting both these key exporters, like Brazil, China, India, and Mexico, as well as certain importers like the European Union. According to the DHL, weak demand will continue to affect routes between Asia and Europe, the United States, and Latin America.
- **Land freight:** When compared to the ocean and air transport, land transport has generally remained partially available globally as roads have remained in operation, except in some countries under severe lockdowns. The trucking capacity has been strained overall because of additional demand for their services especially food and medical supply transportation especially under lockdown, when combined with reduced employee availability and thus leading to higher rates. Other economic sectors that require land transport, such as manufacturing, which are generally not at full capacity because of lockdowns. As a result, because of this spot road freight rates have fallen in some markets and the demand for rail services has grown because of higher air cargo freight rates, blank sailings, and some longer transit time for trucks.

- **Air freight:** Volumes fell by 19 percent in March 2020 due to a sharp reduction in the number of passenger flights. However, as shippers and governments have turned to air cargo for their essential goods, air freight rates have increased and some carriers are seeing these delays with their increased congestion at airports. Mid-April had already seen an increase in capacity, as well as a recovery in volumes transported. However the overall reduction in capacity is always greater than the net reduction in demand, which supports higher air freight rates.

Operational constraints are expected to lead to delivery delays, congestion, and higher freight rates. However, not all segments are impacted equally, companies that serve e-commerce are seeing increased activity as consumers opt for online shopping of essentials, while those that serve other sectors (such as auto and consumer goods) will see a downturn. Overall, the uncertainty will exert downward pressure on revenues for both small and top players in the industry.

- The impact is severe for small players: Small trucking businesses are being severely hit because they tend not to have any backup, recovery plan, or intermittent operation plan. Lack of technology, as well as tools to follow health guidelines further complicate their response.
- Top players are experiencing a strong impact: In April, some of the logistics companies (DHL and CEVA) declared Force Majeure a clause that allows contracts to be declared null and void due to acts of God or other unexpected circumstances on all their contracts due to COVID-19. Other company's credit metrics are likely to deteriorate, triggering downgrades, as has already been seen in the sector.

## **2.2.2 RESPONSE TO THE CRISIS**

For the most part, governments have responded to the crisis by designating ports, shipping, and trucking services as essential and thereby exempt from lockdown measures. The Indian government exempted the movement of cargo through ports, supply chains, and the transport of essential commodities from lockdown rules. Although many airports around the world are closed to passenger flights, most are still open to cargo, which can be essential to the COVID-19 response. Closer collaboration between governments and third-party logistics companies has also been necessary to address supply chain bottlenecks and facilitate clearances.

Third-party logistics companies have adopted a range of responses to these uncertainties, including:

- **New safety protocols:** To protect their staff's health, some companies have introduced new protocols on social distancing at warehouses, disinfecting work areas, or providing protective gear, while giving staff unlimited unpaid time off. However, these efforts, which come at a higher financial cost, cannot guarantee protection against outbreaks in confined warehouses.
- **Alternative modes of transport:** Many companies are using these creative alternatives to their go-to transport modes. Since the reduction of many passenger flights has reduced these airplane belly cargo capacity, companies such as DHL have used these kinds of charter flights to transport such shipments to and from China. Airlines are also repurposing passenger aircraft for cargo.

- Adapting all of these service offerings to the current demand and some safety protocols: Some of these larger players have been playing an important role in delivering medical supplies. Companies are also adapting to demand. Warehouses and retailers are focusing on mostly the grocery deliveries since demand is high for essential products, while companies in the last-mile segment are offering no-contact delivery options.

### **2.2.3 THE RECOVERY AND LONG-TERM IMPACT**

The complete recovery and some long-term impacts of the pandemic on logistics can be affected by certain adaptations and factors, as described below:

- Increased and dedicated air cargo capacity: This airline industry has already reallocated their fleet in order to exclusively serve air cargo in demand.
- Increased cargo inspections and some cross border control protocols: Governments have genuinely responded to the crisis with some temporary trade embargoes and some export restrictions for sensitive cargo (such as medical supplies, pharmaceuticals). In the longer term in which logistics costs may increase due to some tighter cross-border processes and controls fuelled by concerns regarding the transmission of diseases.
- Technology and e-commerce rise: Logistics has been in the midst of a tech-driven revolution. Companies with mostly robust digital capabilities that allow them to provide cargo visibility/traceability and do business online are at an advantage. This would entail more investments in

technology, such as the Internet of Things (IoT), cloud computing, automation, along with data analytics. In the long term, robotics drones, and even autonomous vehicles might reduce logistics services providers' exposure to such induced labor shortages.

- Reconfiguration of global value chains: The pandemic has even exposed the vulnerability of some of the extended and some complex value chains to production disruptions. As a reaction, many of these supply chains may shorten or even diversify through this reliance on certain alternative partners or some intensified efforts to bring home strategic value chains. The shortening of supply chains may benefit countries like India with capable manufacturing sectors and beneficial exports' policy in order to partially substitute China over the medium term. There may also be a certain trend towards placing these additional warehousing capacity or some dry ports near demand centers to shorten the time to get goods to market.

Recovery prospects will vary by country, subsector: As logistics is a diverse sector, these recovery prospects will vary depending on the length of lockdowns and the duration of the subsequent economic crisis. Large companies with a varied and diversified business will be better placed in the near future.

## **2.3 FUTURE SCOPE OF LOGISTICS SECTOR**

Tech-driven integrated logistics are currently becoming an integrated part of the country. The warehouses in the country are currently equipped with many automated sorts and handlers and IoT devices. This helps in saving time in in-house logistic operations. One point of the logistics chain to another can be seamlessly brought together by aligning the processes with the help of block

chain technology. This is especially helpful in eliminating the duplicities of the documentation processes. Also, because of the manual entry of data, there is a potential risk of errors in the system through various points in the value chain. But block chain technology is helping in controlling this.

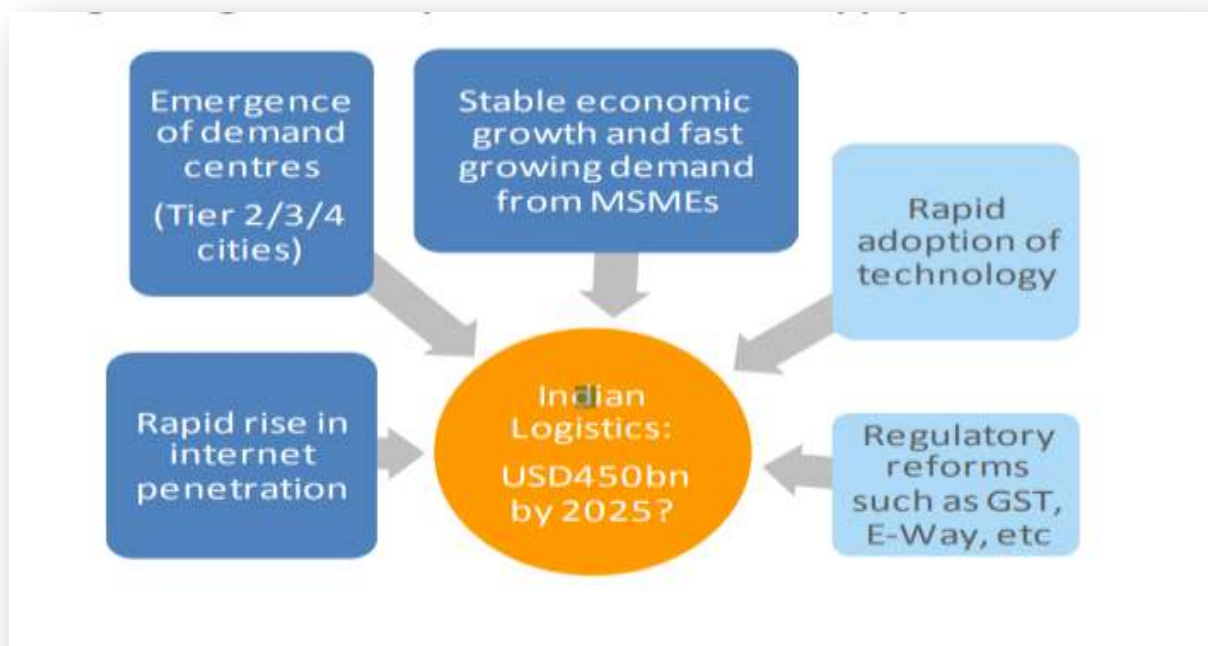
The Union Budget 2021 promises increased spending on infrastructure, focusing on new and improved economic corridors, and road and railway infrastructure. The Government's push to port, road and rail infrastructure through various investments, initiatives and projects will further add to the development of the logistics industry in India. With faster construction of the Dedicated Freight Corridors and road highways, not only will the logistics sector benefit, but it will be able to add strong support to domestic manufacturing programs. Looking at the big picture, on the global level, Indian logistics as an industry has come a long way and is expected to keep a significant upturn in performance on the world's platform. Companies and International Corporations joining hands with the various logistics companies of India will create a mutually beneficial relationship by reducing their logistics costs, increasing transportation abilities for the customers while bringing much-needed income to make the logistics industry the biggest industry of the country.

The Indian logistics sector will evolve over the next few years and there will be multi-dimensional changes.

**Contract logistics** would now become more structured as the country would seek providers who can offer automation and mechanized solution than manual options. This sector will mature in future with modernized facilities, state of the art technology for material handling equipment, and highly secure and safe premises. Health, safety, and security will become extremely important and that includes fire sprinklers, hydrants, and automated retrieval systems etc.

**Land transport** in India as well will evolve significantly with a barrier being removed and there would be more of national players evolving in this space with a combination of MNC's and local strong players. The section of the industry will become more efficient with the development of transportation infrastructure across the country (expanding roads, railway connectivity, barge operations, coastal shipping etc.).

**Freight Forwarding** space as well will evolve with more end-to-end offering as the customer continues to focus on ease of doing business across India. Customers will look up to the single partner to execute their shipment v/s currently where there are five to six touch points on many occasions before a shipment gets delivered. Service providers who can offer end-to-end solutions with end-to-end visibility would stand out.



(Figure 3: Key demand drivers & supply drivers)

## **2.4 ADVANTAGE OF ADOPTING LATEST TECHNOLOGIES**

The arrival of technology in the logistics sector has revolutionized in the operations and various systems. Technology such as artificial intelligence, machine learning and the internet of things are meant to take out the traditional way of logistics operations in the country. Use of technologies shows a great result to make better improvements in productivity than any other means while reorganizing the operations systems of the nation's logistics industry. When those technology replaces a system that is prone to error, greater things can be expected.

As bringing modern technologies to logistics industry, the backbone of the economy will turn stronger and in also strengthen other sectors of the industries. Even though there might be debates on adopting these technological advancements is costly, it is in the best interest of the logistics sector to incorporate their business with them before the gap between their current and the future advancements becomes vast. While adopting such technology, there will be initial investments to be made like installation, test runs and training the personnel to run those programs, but once everything is placed in, the organization will experience a new revolutionized way of processing, that the older technology could never compete with. In coming years, technology will make space for logistics sectors to handle bigger clients because of powerful management tools.

In the future, it is expected a specialized set of operations for logistics and delivery to be in higher demand than earlier from clients. For every area like technological spare parts, automobile equipment or food delivery, everyone will soon look on the efficiency of a streamlined logistics industry to fulfill all the

transportation, storage and delivery needs of all industries. The advancement of e-commerce sector will soon reach a new high resulting in more opportunities for the logistics industry.

## **CHAPTER 3**

**LOGISTICS DIVISION OF**

**J M BAXI & CO.**

### **3.1 OVERVIEW**

J. M. BAXI & Co, India's premier ship agency, was founded in 1916 which has been efficiently serving tramp and container vessels, succeeding in finding maritime carriage solutions for all types of cargo. J. M. BAXI & Co has had a steady grip on the three pillars of Commitment, Innovation and Performance, thereby universally known and stands for excellence, customer satisfaction, accountability and safety and security standards. It delivers award-winning performance in all its business activities. It has around 600 proficient and committed professionals in diverse 50 locations nationwide. This company is the only ship agent in the world that does not subcontract out its core business.

In the early 1916's Mr. Manilal and Mr. Jayantilal Kotak came to Bombay from Keshod in Gujarat. Being proficient in both Gujarati and English languages, they were an asset to the foreign shipping companies that were trading in India. They met In Bombay, and thereafter partnered with Mr. BAXI in his shipping company, and thus came into form J. M. BAXI & Co.

### **3.2 ALLIED SERVICES**

#### **SHIPPING SERVICES**

Shipping services are considered as a long-established business vertical which is largely data driven. On combining, all these shipping services companies of the group collectively make this group India's largest professional and integrated shipping agency. Certain companies which come under J.M BAXI performing shipping services are as follows:

- United Liner Shipping Services LLP
- Arya Offshore Services Pvt. Ltd

- Container Movement (Bombay) Transport Pvt. Ltd.
- K Steamships Agencies Pvt Ltd
- BOXCO Shipping Services Pvt Ltd

## **LOGISTICS**

Some of India's largest logistics and supply chain service providers, the company's logistics division services diverse parts of the nation providing the customers with a satisfactory delivery on-time, value - added services to sectors ranging from metals to retail, and from oil and gas to fertilisers companies performing logistics operations under J.M BAXI are:

- BOXCO Logistics India (P) Ltd
- BOXCO World
- BOXCOLD
- VIR Shipping

## **INFRASTRUCTURE**

As a part of the infrastructure vertical, the International Cargo Terminal (ICT) has identified the need for specially designed shipping logistics infrastructure. With its state-of-the-art facilities helps connect cargo seamlessly, those Terminals are:

- Mumbai International Cargo Terminal
- Visakha Container Terminal
- Delhi International Cargo Terminal
- Rozi International Cargo Terminal

- Haldia International Container Terminal
- Paradip International Cargo Terminal
- Kandla International Container Terminal

## **TECHNOLOGY**

To maintain the consistency and to evolve with the ever changing technologies, the group had stated this vertical ten years ago. With its keen presence in water, communication and the digital technologies, it has turned out to be the youngest and the most dynamic space in the group. Companies under this division are:

- Arya Water Technologies
- Arya Communications & Electronics Services Pvt. Ltd.
- DIABOS
- PORTALL

## **CONTAINER AGENCY DIVISION**

With a century of experience, J.M BAXI is the most reliable agency in India. With offices in all the Indian ports and ICDs, J.M BAXI represents MLOS's, NVO's and feeder operators. Services pan-India include vessel husbanding and transportation support with EXIM marketing and surveys along with M&R services. The group's infrastructure includes CFSs, ICDs, terminals and rail services in order to ensure seamless support to the agency division.

## **CHARTERING AND BROKING**

Exploiting its century of experience and the keen expertise in shipping, J. M. BAXI & Co's broking and chartering solutions have been developed with keeping the customers' best interests in mind.

### **3.3 LOGISTICS DIVISION**

The process of organising and implementing a complex operation in a detailed manner is called logistics. In layman's code it can be put forward as the process of managing the cyclic flow beginning from the point of origin till the point of consumption in order to meet the customer requirements. It includes certain tangible goods like equipment, materials and supplies, food and consumables. The entire process includes the precise handling of information and materials, production, inventory, packaging, transportation, warehousing and security.

#### **3.3.1 FUNCTIONS**

- Strategically plan and manage logistics, warehouse and transportation.
- Keep track of shipments, delivery times, transport costs and efficiency.
- Arrange warehouse, catalog goods, plan routes and process shipments.
- Resolve any arising problems or complaints.
- Meet cost, productivity, and accuracy and timeliness targets.
- Maintain metrics and analyze data to assess performance and implement improvements in transportation.
- Comply with laws and regulations.

J.M BAXI owns a Logistics company for transportation of goods to and from the port. The Logistics activities of J.M BAXI are dealt by BOXCO Logistics. There are several divisions in the company to handle different types of goods like bulk Cargo, project division for heavy cargoes, and BOXCOLD for refrigerated cargoes and VIR shipping for transporting wheeled cargoes.

### **3.3.2 BOXCO LOGISTICS PVT LTD. - BULK DIVISION**

There is a specialised division in BOXCO logistics, which handles bulk and break Bulk cargo operations efficiently and professionally managing the maritime logistic services over all major ports of India. Their services include bulk and break bulk logistics, vessel coordination, customs clearance, anchorage discharge, stevedoring, barging, onshore cargo handling, mechanized bagging, warehousing management, road/ rail logistics across India with site management and with customised logistics solutions for its clients. They have skilled operations pertaining to food grains, fertilisers, sugar etc at multiple locations with efficiency in handling heavy losses and immune to contamination.

Bulk Handling division of BOXCO Logistics, specializing in bulk and break bulk cargo operations, is an efficient and professionally managed maritime logistics service provider which provides comprehensive transport and logistics services across all major ports in India. They provide an unrivalled range of logistics solutions which includes bulk and break-bulk logistics, customs clearance, vessel coordination, stevedoring, anchorage discharge, barging, transshipment, onshore cargo handling, mechanized bagging, warehousing and inventory management, road / rail logistics across India, site management and end to end logistics solutions customized to the needs of clients. They have pioneered ground-breaking operations in handling sugar, food grains and

fertilizers at multiple locations, which require a great deal of expertise as these bagged cargos are prone to contamination and handling losses.

It has a fundamental approach of efficiently delivering on time with cutting edge services, thereby maintaining a customer centric approach and culture. Their professional diligence has helped to offer efficient and impeccable services with a special focus on inventory management, loss minimization, optimizing turnaround time and monitoring and assigning accountability, thereby reducing overall supply chain costs.

The bulk SBU (Strategic Business Unit) has prioritized 3PL (3rd Party Logistics) in accordance to the upcoming changes in business environment and opportunities in India. The goal is to provide a customized single window with end-to-end logistics coupled with a feasible supply chain to all clients.

### **3.3.3 BOXCO LOGISTICS PVT LTD. – PROJECT DIVISION**

Project Division in BOXCO logistics has the capacity to manage logistics for capital goods with the capability to provide heavy haulage transportation with heavy lift services by achieving a partnership with clients through building new and creative business models utilising their years of expertise with diverse industries.

BOXCO Logistics, Project Division believes in bringing innovative business models in customer's growth plans. It bring years of expertise with diverse industries and offer insights into managing logistics for capital goods across segments. BOXCO logistics are capable of providing heavy haulage transportation and heavy lift services. Project Logistics Division of the company existed since early 80s, however to add focus and to cater to the growing industry demand the division was rechristened and hived to the BOXCO

Logistics in 2011. It became unique one-stop maritime, International and domestic logistics solutions on a scale never seen before in the country.

### **3.3.4 VIR SHIPPING**

A part of the BOXCO Logistics dealing with catering of increasing demand of industry by using a specialized fleet of Ro-Ro ships. It has a specialized expertise in worldwide ocean transport of Abnormal Load Transportation, ODC and SODC.

### **3.3.5 BOXCOLD LOGISTICS**

It is a cold chain logistics company which is concerned with the end to end supply chain solutions in the cold chain space. It was set up in 2013, and has brought up opportunities for agricultural growth, marine products, dairy products, chemicals, pharmaceuticals, processed and frozen foods, etc.

The vision of BOXCOLD's is to be on the front line with the right technology, infrastructure and service quality for catering to this industry. By devising a cold chain network for domestic and EXIM (Export-Import) requirements, BOXCOLD aims to exploit synergies drawn from J. M. BAXI Group of companies through its Pan-India International Cargo terminals.

### **3.3.6 BOXCO WORLD**

BOXCO World has been providing Sea and Air freight forwarding services across the world with a competitive advantage of tailor made supply chain solutions to the clients.

The company has achieved new milestones by designing, managing and servicing supply chain and logistics solutions for clients across all major industry verticals like Aerospace, Automotive, Pharmaceutical and Healthcare, FMCG including perishables, Mining and Energy, Agriculture, Oil and Gas and High tech companies through their highly competent and skilled professionals with high end efficiency and in a cost effective manner as well. Some of the primary services provided by the BOXCO WORLD include Custom clearance, Sea freight forwarding, Air freight forwarding, Project Management, Contract and Lead logistics and Overland Transportation.

## **CHAPTER 4**

### **J M BAXI AT COVID TIMES**

## **4.1 INTRODUCTION**

The Novel Corona virus (COVID-19) pandemic has had severe health and economic impact in most countries. Within the immediate aftermath, India and several other nations have prioritized the health of people over economic activity to contain the spread. The COVID-19 pandemic surfaced in India and sparked off a crisis of great proportions. By the end of March 2020, this began impacting economic activity with the announcement of a nationwide necessary and complete lockdown.

Economic activities came to a standstill situation and are returning to a new normal in a different manner since the third week of April, 2020. It is expected that any reasonably demand recovery can take several months as overcoming challenges within the form of getting migrant labourers back into their jobs, resetting disrupted logistics networks and overcoming liquidity constraints of especially towards working capital needs, cannot be achieved within a small span of time.

## **4.2 CHALLENGES AND MEASURES TAKEN BY J.M BAXI DURING COVID-19**

### **4.2.1 CRUISE SECTOR**

The cruise industry has been severely affected by the outbreak of the pandemic. Cruise lines have been forced to revise their itineraries due to shut down of some ports or restrictions on some nationalities visiting them, most at very short notice. J. M. BAXI & Co. was extremely responsive towards the enabling of

ships to maintain their actual itineraries or adapt to changed ones by getting on-time approvals from different authorities.

#### **4.2.2 SHORTAGE OF TRUCK DRIVERS AND LABOURS AT THE TERMINALS**

The container and truck moving in and out of the terminal drop by half due to shortage of trailers and lack of drivers. Even though government has approved the movement of cargo trailers under needful goods and services, the actual situation was completely different. The truck were stopped at every check-point just a few kilo-meters apart from making cross-border and provincial border travel was challenging. And with the lockdown there was no food and hospitality along the highway and also lack of repair shops. Truck drivers didn't get the services they needed even on highways. Other areas which got affected due to shutdown or slowdown of factories are ICD and CFS operations, owing to non-availability of labour.

Panic has been created among labours and drivers due to fear psychosis in response to COVID-19 virus, absence of work, entry restriction from local villagers, and lack of sustenance in the cities and transportation hubs. So as the effect they started moving back to their native places.

#### **4.2.3 INCREASED LOAD ON RAIL TRAFFIC AND CONGESTION**

There has been shortage of truck drivers for road delivery which then lead to the movement of hinterland container traffic by rail. This sudden change in rail traffic troubled storage capacities at all ICD terminals with limited number of

operational resources, lack of custom authorities and truck drivers for evacuation and local hinterland delivery to consumption centers.

#### **4.2.4 SHIPMENTS HANDLED BY J.M BAXI AT VARIOUS TERMINALS DURING COVID-19**

##### **DELHI INTERNATIONAL CARGO TERMINAL**

One of the ICD terminals in Delhi (Sonepat) also known as DICT which is strategically connected to the India's northern hinterland was badly affected due to the lockdown but still managed to operate despite the shortage of manpower, over capacity and communicating with local authority to make sure all permissions were taken to enable smooth operations and handled on an average of 3 rakes on per-day basis.

##### **VISAKHA CONTAINER TERMINAL**

On April 2020, during the lockdown period, VCT handled the highest rail bound container movements. It is about sixty rakes were handled carrying 8,446 TEUs which is the highest number of rakes and rail bound container volumes handled in a month.

##### **KANDLA INTERNATIONAL CONTAINER TERMINAL**

Over 18 vessels, BOXCO handled exports of 3.5 lakh MT of sugar during the period March 2020 to June 2020.

## **CHENNAI PORT**

An import volume 2.8 lakh MT in about 4 vessels were handled by J.M BAXI and one vessel with 54,000 MT of dolomite import. To maintain the customer satisfaction and to keep running their plants, J M BAXI has dispatched 1.84 lakh MT over 48 railway rakes of essential raw material during the lockdown.

## **PARADIP INTERNATIONAL CARGO TERMINAL**

BOXCO handled exports of 2.3 lakh MT of steel during the period April 2020 to June 2020. BOXCO handled imports of fertilizers in 3 full of ships with a volume of 1.25 lakh MT and dispatched around 80,000 MT, containing of approximately 40 railway rakes, to various consumption centres. In July 2020, PICT handled 2.25 lakh metric tonne with 86 steel rakes even in lockdown situation and endless restrictions.

## **HALDIA INTERNATIONAL CONTAINER TERMINAL**

Despite the lockdown situation HICT container terminal ensured pick and drop facility even though the terminal was in red zone and also made deployment of skeletal staff to have continuity in operations. In 32 hours after Cyclone Amphan crossed West Bengal, the terminal resumed the operations.

### **4.2.5 TERMINALS ADAPTING WITH THE EVOLVING CRISIS**

The outbreak of Covid-19 has made the shipping trade into a disorder. Oil and cargo carried vessels are stranded at sea for several months due to lack of clarity issues from ports on vessel quarantine, crew change policy and Health and

Safety Executive (HSE) checks at ports which then pushed the worldwide supply chain towards economic slowdown. This situation then soon left ports of India into terrible position as COVID-19 lockdown hit all the operations and mainly affected the ability of traders to do export and import internationally.

J.M BAXI group operates 5 container and bulk terminals at several ports those are Visakhapatnam, Haldia, and Paradip which are on the East coast of India and Kandla and Rozi are on the West coast. In addition to that, company operates Container Freight Station (CFS) at Mumbai and Visakhapatnam and at Inland Container Depot (ICD) Sonapat near Delhi. Three of the facilities at Mumbai, Sonapat and Haldia, due to high occurrence of COVID-19 patients, the ICD's were declared as Red Zone, which in turn making the operations much difficult to continue despite of the logistics being considered as crucial services. Volumes took a plunge, given the first-mile which is the cargo evacuation from port and the last-mile that is supply-chain between ICDs to company warehouses, being strictly limited which posed massive challenges.

ICT teams embarked on moving food grains and other necessary commodities for all people of Indian that rely on services which connect terminals to remote hinterland. ICT terminals through the network of port authorities, suppliers, drivers and manufacturers, even struck key player partnerships to pool resources to ensure smooth movement from cross-border to intra-state and last-mile deliveries. Terminals coordinated with railway authority as the tracks were totally free of passenger traffic and the railways were able to move the cargo from gateway ports to the hinterland, taking away some of the load from the ports. For container traffic, railways announced empty container at no cost and flat movement during the second and third phase of lockdown which helped operators to move rakes quickly on the railways network which ensured customers timely cargo movements in and out from ports.

### **4.3 BOXCO IN COVID TIMES**

The logistics division of J M BAXI's BOXCO Logistics had being the most reliable heavy-lift logistics provider, even in challenging circumstances. The COVID-19 pandemic created a sudden disturbance of life in general. In particular, the transportation of heavy-lift and over-dimensional cargo (ODC), which needs a huge amount of planning, was severely affected by the beginning of a countrywide lockdown from 25th March 2020. Transporting massive heavy-lift and ODC packages on multiple axles on roads in a pandemic situation like these has numerous challenges to be faced, particularly in the starting phases of the lockdown when nothing was allowed to move. The impending situation was studied well by the management of BOXCO and business continuity plans were arranged. The equipments that BOXCO logistics deliver ensures that India's refineries, power plants, steel plants and other important projects are completed on time. This reduces the impact that the pandemic has had on the India's economy.

| Client           | Cargo   | Length (m) | Width (m) | Height (m) | Volume | Weight (tonnes) | Proposed axle combination | Route                        |
|------------------|---|------------|-----------|------------|--------|-----------------|---------------------------|------------------------------|
| GR Engineering   | 837-TR-C-10<br>Top section                          | 23.2       | 5.5       | 5.8        | 740    | 205             | 16                        | Tarapur to HMEL Bhatinda     |
|                  | 837-TR-C-10<br>Bottom section                       | 20.6       | 5.4       | 5.8        | 639    | 150             | 12                        | Tarapur to HMEL Bhatinda     |
|                  | 911-EE-5001<br>(Propylene refrigeration condensers) | 16.6       | 4         | 4          | 266    | 149             | 10                        | Tarapur to HMEL Bhatinda     |
|                  | 837-TR-C-20<br>Top section                          | 21.8       | 4.5       | 5.5        | 540    | W65             | 12                        | Tarapur to HMEL Bhatinda     |
|                  | 837-TR-C-20<br>Bottom section                       | 30.3       | 5.4       | 6.3        | 1021   | 116             | 16                        | Tarapur to HMEL Bhatinda     |
|                  | ISGEC   | PV 0562    | 40.1      | 9.5        | 11     | 4190            | 621                       | 24 + 24                      |
| Tecnimont        | Gas phase reactor                                   | 19.7       | 4.9       | 5          | 484    | 87              | 10                        | Mumbai Port to HMEL Bhatinda |
| Vardhamana Trust | Temple stone  | 25         | 3         | 3          | 225    | 150             | 10                        | Mangalore                    |

(Figure 4: Packages moved by BOXCO during lockdown)

Two packages were moved by BOXCO logistics during the lockdown situation, both of that was a heavy-lift columns using 16-axle and 12-axle lines, respectively, from the manufacturing unit in Tarapur to Bhatinda. The BOXCO Logistics team, with good support from the clients convinced the authorities to permit the movement. One advantage of the lockdown was that the roads were clear. BOXCO also successfully delivered a gas phase reactor weighing 85 MT on a 10-axle line along with other packages from Mumbai Port to Bhatinda. In the super ODC segment, BOXCO also delivered a 40-metre-long package weighing 621 MT on 24 parallel SPMT lines. All the movements were undertaken with the minimum number of experienced staff of BOXCO to ensure the safety of operators.



(Figure 5: ODC cargo moved by BOXCO during Covid-19)

BOXCO also moved a 150 MT granite block to be used for the construction of the Mahakaleshwar Temple in Gurupura in Karnataka. The block was moved on 10 axles.

#### **4.3.1 BOXCOLD**

BOXCOLD, the cold-chain division of BOXCO Logistics, had slowly done volumes of cold-chain imports through Inland Container Depots (ICD), specifically of fruits such as apple and kiwi. Reefers arrive from supplying countries at Kandla/Mundra and are then moved by rail to ICD Sonapat, where the goods are stored in a temperature-controlled warehouse for onward shipment to consumer points.

#### **4.4 CREW CHANGE BY J M BAXI**

J. M. BAXI & Co. is a premier shipping agency house in India with a 104-year old legacy. On 22nd April 2020, DG Shipping issued an order to allow crew changes. On 23rd April 2020, J M BAXI carried out by carrying out the first ever crew sign-off for an Indian crew from the cruise ship Marella Discovery in Mumbai. Ever since that the company has been in the forefront, carrying out several crew changes at many Indian ports using company's network of branch offices. The company followed the guidelines and the Standard Operating Procedure (SOP), which entailed coordination with COVID-19 testing facilities, quarantine centres, the local police and district authorities, in addition to the usual port, customs and immigration organizations.

J. M. BAXI & Co. has been the first agency to commence a crew change since the time of lockdown in India at various ports such as Mumbai, Goa, Sikka, Hazira, New Mangalore, Cochin anchorage, Kolkata, Haldia, Paradip, Cuddalore and Tuticorin anchorage. At Visakhapatnam, Gangavaram and Dhamra, J.M BAXI actively involved in crew change operations, coordinating with the relevant authorities to formulate the SOP. As domestic flights are suspended, the crew travels safely by road to their homes in specially sanitized buses and cars with drivers who have tested negative for COVID-19.

#### **4.5 OTHER INITIATIVES BY J.M BAXI GROUP**

International Transport Partner Wan Hai Lines discharged 1 x 40' container containing 250 oxygen cylinders and corresponding numbers of regulators on 31st May. The container is transported to J.M BAXI's Mumbai International Cargo Terminal to CFS in Nhava Sheva and further these cylinders were distributed to the various places in Maharashtra.

J M BAXI group has bought 1100 cylinders totalling 7200 CBM of carrying capacity from Singapore in rendering assistance to supply, store and transport Oxygen within the country. As from the beginning of pandemic, the company is trying to do its part to assist in fighting with the situation and also trying to leverage its goodwill in the EXIM and infrastructure industry by purchasing, carrying and handling for a charitable cause.

## **CHAPTER 5**

# **FINDINGS, SUGGESTIONS AND** **CONCLUSION**

## 5.1 FINDINGS

- The COVID – 19 pandemic has severely impacted the global economy and logistics is one of the most predominant sectors to get affected by this disruption.
- RPA (Robotic Process Automation) can be considered as one of the key factors in the logistics sector as far as automation is concerned which will increase the efficiencies of supply chain process.
- More emphasis on new technologies like AI would be crucial to the next-generation supply chains owing to the increased turnaround time for emergency responses.
- Data mining in the form of excursion of historical data will be vital in the upcoming years. The formula of future prediction may turn out be game changers and will bring noteworthy expertise on a global scale.
- The lockdown has definitely created stress in the logistics industry owing to lack of manpower and transport availability, the crucial drop-in air capacity and several other factors. The air capacity had considerably dropped below 20 percent, which has therefore affected the export and import of pharma and other commodities.
- The logistics industry is currently experiencing a change in customer preferences as the demand has increased for certain integrated solutions and along with organized players who are capable of raising the scale of the supply chain management efficiently and effectively.

## **5.2 SUGGESTIONS**

The COVID-19 crisis has made the logistics industry realize the need for a robust IT infrastructure and the need to increase focus on implementing more technologically advanced digital solutions to carry out streamlined operations across the supply chain.

Logistics companies need to enhance rapidly by bringing automation and digitization need to be introduced in logistics companies in order to reduce costs and to increase efficiency. Responding to COVID-19 has turned out to be very challenging and also the cold-storage companies need to regularly revisit their supply-chain strategies, in order to increase the speed of the adoption of cold-storage technologies and for the implementation of supply-chain risk management and some business continuity strategies.

Warehouses have to adopt certain cold-chain technologies, like cloud-based warehouse management systems, automated guided vehicles, mobile racking, Radio-frequency identification (RFID), sensor tags, and Internet of things (IoT) in order to enhance the overall warehouse operations, so as to improve efficiency.

### **5.3 CONCLUSION**

The growth rate of logistics in India has shown tremendous improvement during the last decade, where after starting from scratch it has reached a level where the Indian logistics industry is currently competing with the top players of the most prominent countries.

The users of logistics services have finally realized due to Covid -19 pandemic how stretched their supply chain was and that it made them too vulnerable to disruptions. So many companies have redesigned their network, and have built redundancies for critical items and also at the same time have opted for a leaner just-in-time solution in other cases. The industry has to ensure efficient logistics operations coupled with a quick delivery of goods across the end points.

The Indian logistics industry is considered as an end to end solution provider compared to the earlier consideration as service provider only. This is for the multiple sectors of the industrial realm. In the upcoming years, the worth of the logistics industry will expand to billions due to the key areas bringing a substantial improvement to operations and overall management. Apart from improving global rankings, it is safe to say that we can anticipate the Indian logistics industry to become the dominant industry in the country.

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