



Shift In The Global Supply Chain – A Boost In The Indian Micro Small And Medium Enterprises.

¹Perna Pandey, ²Dr. Amar Kumar Chaudhary,

¹Research Scholar(NET JRF), ²Associate Professor.

¹University Department of Commerce and Business Management,Ranchi University,Ranchi ,India.

Abstract:

A global supply chain acts as an important medium in integrating international markets and helps manufacturers and industrialists around the world in expanding their businesses globally and thereby making it more efficient and profitable due to low cost advantage they get from the country they source. It is an international network of manufacturers, vendors, distributors, retailers, transportation companies and warehouses which operate together efficiently. This paper looks into the weaknesses and the risk that the global supply chain got exposed to due to Covid-19 and how various businesses and corporations, Post Pandemic are preparing on bringing the required changes in the global supply chain to make it more adaptable and transparent and less risky in the times to come.

This paper will also discuss about how this shift in Global Supply Chain can prove advantageous for India's manufacturing sector growth and make India an alternative option for international Investors who are planning to leave China and looking for a cheap and resilient supply chain. It further discusses about various schemes designed by the government to make India a favourable Supply Chain destination and the advantages India has that can attract global Investors to India owing to India's large population with around 67% falling under the age of 15-64 making India rich in abundant labour force at cheap rate.

Keyword: Global Supply Chain, resilient supply chain, manufacturing sector, Micro, Small and Medium Enterprises, Production linked Incentives.

Introduction.

Before going into the topic it is important to understand the meaning of supply chain and the role it plays in promoting international trade and economic growth of countries involved in it. Supply chain is the system or network of business interlinked with each other in two or more countries with the aim of manufacturing and delivery of goods and services and taking care of after sale services. This kind of network is often preferred by businessmen, as it reduces cost and helps in generating more income for the business, it also plays a very crucial role in generating employment in countries involved in manufacturing and delivery of goods and services.

The outbreak of coronavirus has caused major disruption in global supply chain which has not only had a negative impact on business and economy worldwide but also led to consumer dissatisfaction, raising a question on the dependency of the on-going global supply chain model in the face of an emergency such as the pandemic that shocked the world since 2019. The current failure of the supply chain has made business thinkers to look for a solution so that if faced with similar situation in future the businesses don't run into jeopardy.

Even before the outbreak of covid-19 rising tension between United States of America and China was at peak making both the countries to impose heavy tariffs on each other, there was rise in the practice of protectionism in international trade, logistics related problem globally, these had already started to reshape the global supply chain.

Post Pandemic, the weakness of the distributed business model was out in the open causing huge losses to businesses and loss of employment worldwide. Prior to covid-19 outbreak, the function of this model was relatively smooth as there was stability in both production and demand without compromise in quality and at reasonable cost. This very feature of this model also turns out to be its weakness. The Just In Time inventory model has minimum lead time period with almost no inventory in stock due to which it became impossible for business houses to carry on production and delivery of goods the two very core functions on which the entire supply chain model is based on. This weakness that the supply chain faced needs to be fixed and many industrialist post covid-19 have now changed their approach from low cost to low risk manufacturing of goods and services as closeness of production area with the home country or where most

of the demand is based will reduce transport and shipment problem as well as other related problems that were faced by them when coronavirus outbreak took place.

The disruption in supply chain led to shortage in inventory and difficulty in sourcing of goods or raw material to meet the surging demand of consumers due to which there was lack of medical supplies food and other basic necessities world wide. Thus the changing pattern is seen in international trade policies, rising trade tensions have caused the global supply chain to make many amendments in its structure which the world is going to witness in the coming future. Post pandemic the companies are now focusing more on a resilient supply chain that can withstand any sudden crisis that may befall on its functioning. The need now is not just low cost but also low risk.

It is here where India as a country can make the most out of this opportunity, as many companies now are not only shutting down their production units in China but also diversifying their options of sourcing so as to remove sole dependency on just one country. India here can make the most of this situation due to its demographic advantage that will provide cheap labour lowering the manufacturing cost. Some businesses are also considering localisation and regionalisation to reduce risk.

With the Indian government, giving a push to promote, Atmanirbhar Bharat Abhiyaan and Make in India objective there is a great opportunity for the country to capitalize this change in the global supply chain and to attract businesses and industrialist to source from India by making required changes in its trade policies as this will help India in generating huge employment for its people and improve its economy. According to a report India will soon surpass China and become the most populous country by 2030 and also become the third largest economy. With rising population it is also estimated that consumer demand will rise from \$1.5 trillion in 2019 to about \$6.0 trillion by 2030 a 300% increase overall.

The rise in the Indian domestic market will lead to the rise in demand for goods majorly of the middle income people. This accelerated growth in consumption is most ideal for international corporations involved in supply of discretionary items such as cars, smartphones and laptops, products related to personal health and hygiene etc. The future growing market will help India expand its manufacturing business and attract foreign investment which has a great potential to boost the Indian Micro, Small and Medium Enterprises as well.

Impact of covid 19 and shift of supply chain on business:

Over the past 2 years the global supply chain has been affected by the production issues related to covid-19, shortage of skilled and cheap labour supply, shortage of inventory and sudden rise and fall in demand amongst other issues. According to a Morgan Stanley Analyst travel restriction and quarantine may pose as a hindrance in increase in manufacturing due to labour shortage and limited demand. Due to labour shortage the logistic industry is also feeling the heat of the situation as it is causing the movement of goods and services expensive causing high prices.

Businesses are facing problems in sourcing even essential commodities like food and medical supply. This disruption has made these commodities expensive and hence causing unrest among consumers.

Supply chain disruption can be taken care by diversifying sourcing option as depending solely on one country's supplier can be problematic in case of a natural disaster or any similar kind of a crisis. A good backup strategy helps the business from unfortunate event. Often companies that source from another country faces the problem of transparency or visibility in the supply chain which creates problem in taking timely decision in order to avoid a critical situation and can also block funds and cash flow for a long period. Visibility in supply chain can help businessmen to understand the flow and availability of components and help in timely decision making. A supply chain network faces a major setback in case of logistic or transport failure. Weather conditions, traffic delays, cargo theft, regulatory changes and shipping damages are few of the common occurrences causing transport disruption in supply chain. Hence a business should do a proper research and analysis of the logistic company they choose to partner with in order to avoid risk of transport failure.

A business needs to consider geopolitical risk before sourcing from a specific country or region as it will help the businessman to take into account the future risk associated with that particular region and be ready with appropriate measures in case of any disruption as geopolitical instability may cause travel hazard, communication issues and other similar issue. A supply chain disruption can also be caused by changes in the prices of raw material which serves as a baseline cost for any other cost component in the supply chain. To avoid such disruption the business or entity must do a proper market research and should be able to study the changes in prices of the commodity or raw material it requires and then plan accordingly whether to buy it or purchase in future when the prices fall.

Another problem that companies are facing now a days is cyber attack where hackers use malicious ways to hack computers and mobile phone of its competitor to get access to their data and use them for their own benefit. Employees and businessmen need to be educated and made aware of such malpractices and should also take important security measures to avoid such data leaks and cyber attack by investing in security tools.

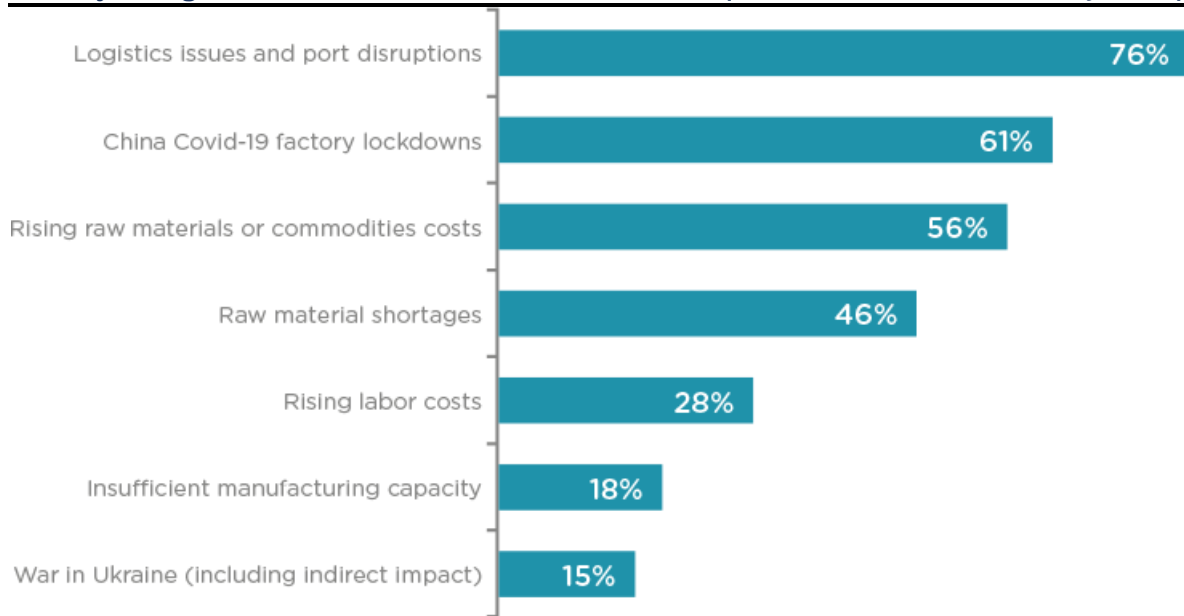
A resilient supply chain helps in reducing risk and protects a businessman from heavy losses. Visibility in supply chain helps the businessman to come up with plans and ideas which proves beneficial for the business in real time situation. A resilient supply chain helps in increased productivity and ceasing better opportunity.

According to a 2020 report by the law firm Foley and Lardner due to the effect of Covid -19 around 43% of the respondents have either withdrawn their production partially or are planning likewise from a country that is exposed to high risk. Most of the manufacturer are withdrawing to places near their home so as to reduce the risk of supply chain failure due to logistic issue or socio-political issue or any other unfortunate incident. Due to the problems that businesses faced due to Covid-19 imposed lockdown worldwide, businesses and corporation are now reducing their dependency on Just In Time manufacturing business model with a total of 62% respondent agreeing to the same. The report also stated that 70% of the companies are now in favour of sourcing from countries with higher supply chain resiliency than low cost supply channel.

The survey also pointed that over the next few years to come around 42% respondent will try to solidify their relationship with the supplier and increase visibility, with around 30% agreeing to diversify supply chain across various geographies and with 39% agreeing to reduce dependency on one supplier. The businesses are also facing challenges regarding the safety of their employees.

The pandemic has made the businessmen to rethink their business practices in order to face challenges that world will face according to changing times. The ill effect of pandemic has made around 70% of the businessmen to shift to a more resilient supply chain over a lowest cost supplier.

According to the QIMA Survey 2022 major Supply Chain disruptions faced globally are ranked as follows:



(source: QIMA survey 2022)

Review of Literature.

According a paper named “Overreliance on China and dynamic balancing in the shift of global value chains in response to global pandemic COVID-19: an Australian and New Zealand perspective” published by Hongzhi Gao, Monica Ren, It is important to develop more than one interchangeable, complementary value chain so that sole dependency on China can be removed. They also stated that primary industry exporters must take into considerations other emerging markets such as India, Indonesia, South American countries and others as an alternative. They also recommended that manufacturers in high-tech areas must establish a production base in home country or nearby where the likelihood of political disruption is minimum during pandemic.

Vanessa Miller, co chair of Foley’s Coronavirus Task Force and co chair of the Supply Chain Team said that businesses need to learn a lesson from this pandemic and emphasized that with changing times cost can not be the only consideration and only by bringing in alternative suppliers, using technology and partially shifting certain functions to home country can a business be able to stabilize their supply chain.

In an interview Indira Nooyi Former CEO and Chairman of PepsiCo said that now we to need to rethink about what control we have on the critical components in the global supply chain. She stated that in order to become self sufficient India can focus on producing critical life savings drugs, vaccine, ventilators, PPE etc. as India has an edge in it and by becoming innovative, undergoing large scale manufacturing and reducing cost it can become a high scale manufacturing country.

Again in an AT Kearney survey report on supply chain, jointly made with the Council of Supply Chain Management Professional, stated that there are six major trends that will shape India's supply potential by 2025. Out of them one of the potential for Supply Chain is the growing urbanization and infrastructure growth and the second major trend is the government's drive to encourage manufacturing such as extending Production Linked Incentive (PLI) scheme and massive fiscal support to MSMEs.

According to a 2020 Survey Conducted by the law firm Foley & Lardner the executives of Manufacturing companies are rethinking about their global supply chain strategies. The survey showcased the following results: It stated that around 70% of respondents are now wanting to reduce their focus on sourcing from low-cost suppliers to a more resilient supply source; At the same time almost 62% are now placing less emphasis on just-in-time inventory model and approximately 43% respondents have either withdrawn or are planning to withdraw from China; and 42% now plan to strengthen relationships and increase supply chain transparency.

Objective:

This research paper deals with the changes that the global supply chain is facing post pandemic and how this situation has led to a shift in global supply chain. The main objective of this paper is to discuss about

- the causes that led to the shift in the global supply chain,
- the required changes or solutions that businesses need to consider before sourcing from a particular country or region and
- the opportunity this global shift in supply chain has created for India and how it can boost Indian manufacturing Industry by giving a push to the Micro, Small and Medium Enterprises and facilitating large scale employment generation.

How to increase resiliency and boost the manufacturing sector of india :

India needs the support of both its private sector and government sector in order to achieve the growth in its manufacturing industry, which will in turn lead to healthy employment generation and make India compete globally. There is an urgent need to make the Indian workforce skilled and provide them with the required vocational training so as to make the workforce industry ready and attract global companies to India.

The government needs to come up with business friendly policies so that Multinational corporations find India as an alternative source for conducting their business activities. By investing in and developing its infrastructure and integrating schemes such as Production Linked Incentive, National Investment Pipeline, National Logistic Policy and many more India can boost morale of young entrepreneurs and investors and help in growing its manufacturing industry. India at present needs to focus on reducing its trade deficit by promoting the manufacturing sector and also provide jobs to the ever growing working population.

Business houses require to be closely in contact with their supplier in order to reduce their supply chain risk. Planning along with thorough assessment, and monitoring of the movement needs to be done to ensure smooth functioning of the supply chain along with flexibility to adapt to changes taking place in the surrounding.

Single source dependency by companies needs to change by diversifying investment the companies need to be ready to be able to adapt to the changes the inefficiency in which led to supply chain disruption due to which consumers and corporations had to pay high prices for certain goods just so as to get a timely delivery of it.

Government initiative to facilitate the supply chain shift in india's favour:

The policy makers have understood the role of manufacturing sector in a country's economic stability and initiatives such as Make in India and Atmanirbhar Bharat plans on promoting entrepreneurs to establish business unit and also attract foreign Investment in the country. Production linked Initiative introduced in November 2020 not only helps in reducing imports but also promotes export and by providing financial assistance to manufactures who are eligible coming from key sectors such as steel, pharma, electronics, automobile and auto components, food processing, solar photovoltaic manufacturing, telecom, ACC battery manufacturing and textile. According to Indian Economic Survey 2020-21 the PLI scheme aims at making India an integral part of the global supply chain and will also help in promoting the Make in India initiative. The government also took the initiative to bring reform in the labour laws by consolidating 29 discrete laws covering social security, wages, industrial relations, wages and working conditions.

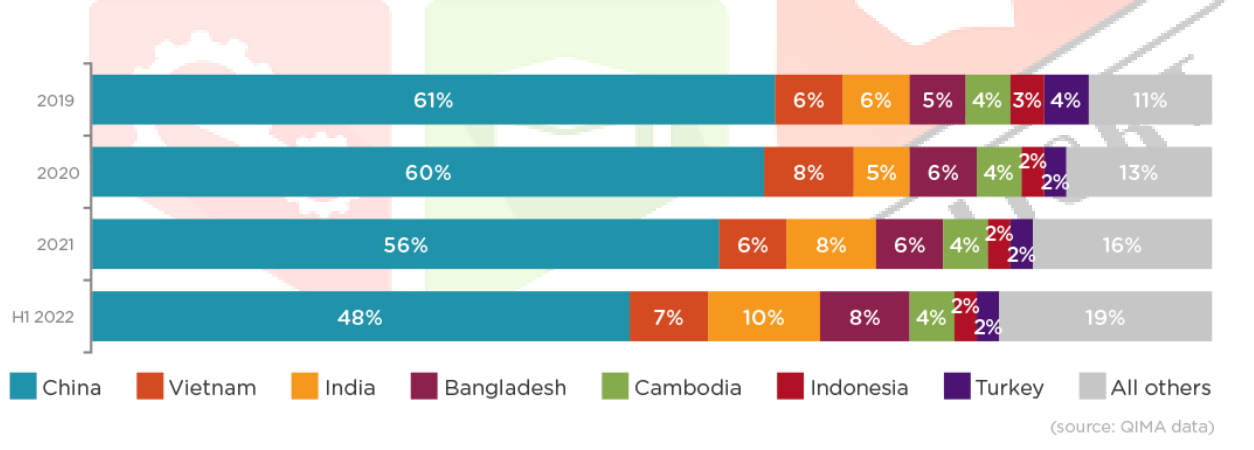
According to the report published by the World Bank, India's rank in the Ease of doing business has improved from 143 in 2014 to 63rd in 2022. All this was possible because of the governments initiative in

reducing unnecessary compliances, resolving insolvency, developing infrastructure, granting construction permits and aiding cross border trade.

The government is making continuous effort in developing the infrastructure in the hope of attracting investment in the time to come. The Bharatmala road development plan has increased the pace of road construction from 12 km a day in 2014 to 30 km a day in 2019. National Infrastructure Pipeline Programme for financial year between 2019-2025 aims at improving and promoting social and economic infrastructure project by allocating 102 lakh crore for the development of various sectors such as energy, roads, railways, urban getting 70% of total capex.

With India projected to have the highest working age population in the world by 2030 surpassing China with India’s 1.03 billion over China’s 987 million the wage rate of India is low as compared to other offshore manufacturing destination like Malaysia and China.

According to QIMA survey 2022, United States and European Nations top sourcing markets as per share can be seen below and it clearly shows a rise in Indian market share from 6% to 10% over a period of four years.



India’s Need for developing the manufacturing sector

As India is projected to be among the countries with the highest working population by 2030 it needs to attract manufacturing investment to develop its manufacturing sector in order to ensure economic growth and socio-political stability. The unemployment rate throughout 2019-2020 has remained above 7% which was higher than the global average unemployment rate of 5.8%.

The table below represents growth in India's working age population over the years.

Series Name	Country Name	2014	2015	2016	2017	2018	2019	2020	2021
Population ages 15-64 (% of total population)	India	65.59	65.94	66.27	66.53	66.76	67.00	67.26	67.44

Data from database: World Development Indicators (Last Updated: 09/16/2022).World Bank National Accounts Data.

In order to ensure equitable growth India needs to develop its manufacturing sector for job creation and employment generation as the service sector requires more of skilled and educated labour force and hence people belonging to the backward or weaker section would be deprived of job opportunities. By developing the manufacturing sector jobs can be provided to people coming from weaker sections as well who may not have high professional qualification thus raising living standards of people. Development of manufacturing sector can also help In reducing import and growth of export which can help India with its trade deficit. When compared to other developing economies like China (93%), Singapore (86%), Thailand (73%), Japan (86%), Philippines (81%) only 71% of India's export comprises of manufacturing export according to 2019 figures.

The data below represent India's growth in Export and Import over the years.

Series Name	Country Name	2013	2014	2015	2016	2017	2018	2019	2020	2021
Exports of goods and services (annual % growth)	India	7.79	1.77	-5.64	4.98	4.56	11.9	-3.39	-9.23	21.06

Data from database: World Development Indicators(Last Updated: 09/16/2022). World Bank National Accounts Data.

Series Name	Country Name	2013	2014	2015	2016	2017	2018	2019	2020	2021
Imports of goods and services (annual % growth)	India	-8.1	0.87	-5.85	4.38	17.4	8.82	-0.8	-13.8	29.9

Data from database: World Development Indicators(Last Updated: 09/16/2022). World Bank National Accounts Data.

From the above data it can be seen that India export as well as import is seen significant growth and from the above data it is quiet evident that India's recovery Post Pandemic is quiet impressive. According to a report released by Bain and Company India's manufacturing export will touch \$1 trillion by 2028 with sectors like chemical, pharma, auto, textile, industrial machinery playing a key role.

According to a report published by World Economic Forum it is estimated that India's real GDP will see a 10% growth rate from 2019(\$2.869 trillion) to 2030(between \$8 and \$9 trillion) with the manufacturing sector contributing around 14%-16% in India's GDP. India with its current potential of a growing population, government initiatives in promoting manufacturing sector and an increasing domestic demand can be lucrative destination for a supply chain shift.

For any country to prosper in today's time especially for a country like India which has a huge population it has become important for it to promote and establish a fully functioning and growing manufacturing sector and in order to do so it has become all the more necessary to promote Micro, Small and Medium Enterprise as they can play a key role in India's growth and help in increasing the contribution of manufacturing sector in India's total GDP. As all the important industries such as pharmaceuticals, automobile and auto component, apparel, textile, tourism all fall under Micro, Small and Medium Enterprises(MSME).

The MSME sector in India generates employment to around 110 million people and contributes 30% to India's GDP and 50% of total export. The global shift in the supply chain can help the MSME sector to prosper and with the help of business friendly policies and government schemes also attract the attention of global investors towards India as it offers wide scope for business expansion, low cost, huge future consumer demand and profitability. Even in the fortune 500 ranking out of the seven companies only two

Indian companies(Tata Motors and Rajesh Exports) belong to the manufacturing sector despite India being the 6th largest manufacturing output in the world.

According to a survey conducted by World Economic Forum India needs to create 100 million jobs by the end of 2030 to maintain its socio-political balance hence Micro Small and Medium Enterprises along with large Industries can lead India to global manufacturing, practices and sustainable standards.

Conclusion

The future of supply chain has already started witnessing changes as corporations are now focusing more on stability and resilience than low cost. Companies have started shifting to locations which are near to where there demand is. Now the focus has shifted on making a more transparent supply chain so that the visibility can help companies make better decision according to the changes happening in the surrounding. Communication with customers and suppliers has also brought a positive change as this new shift has enabled businesses gain more trust and confidence than before and helped in customer satisfaction.

Technology will now have a more important role to play as it can help in logistics and movement of goods and services as well as in smooth manufacturing process by keeping an up to date data system and help in reducing cost. In case of India where the businesses require to get innumerable permits and licences to carry on their work, technology can reduce this time and make it more easy.

At times like these where the world is witnessing changes in almost sll the aspect of business and trade be it emerging technologies, changes in climate, global trade tensions and now a worldwide Corona Virus Outbreak has given good reason to make a change in the on-going supply chain model. This also presents India with an opportunity to attract the global investors by developing its manufacturing sector and building a resilient infrastructure. Initiatives like National Infrastructure Pipeline, National logistic Policy, Production link Incentive Scheme, Make in India and AtmaNirbhar Bharat Abhiyaan despite being ambitious can help India become the best manufacturing and investment source if implementation of these schemes happen as expected.

Hence the future of supply chain is witnessing a global shift and and looks promising, especially for India which is expected to have the largest working age population with high potential demand and a huge consumer base.

References:

1. Buatois Eric and Cordon Carlos,(2020) A POST COVID-19 OUTLOOK: THE FUTURE OF THE SUPPLY CHAIN.International Institute of Management Development.
2. Global Supply Chain Management Effects From a Pandemic, Maryville University.
3. Freeman Oliver,(December 10,2020) The Global Supply Chain Technology Outlook 2021.
4. Uetz Marie Ann,Kalyvas R. James,Miller L. Vanessa,Wegrzyn E.Kathleen, (September 29,2020), Global Supply Chain Disruption and Future Strategies,Foley and Lardner Report.
5. <https://www.foley.com/en/insights/publications/2020/09/global-supply-chain-disruption-future-strategies>.
6. Gao Hongzhi, Ren Monica (May 22,2020), Overreliance on China and dynamic balancing in the shift of global value chains in response to global pandemic COVID-19: an Australian and New Zealand perspective. *Asian Business & Management* (2020) 19:306–310 <https://doi.org/10.1057/s41291-020-00121-3>
7. COVID Resilience Report: The Impact of COVID-19 on Supply Chains and How Businesses are Preparing for the Next Shock.Interos
<https://f.hubspotusercontent20.net/hubfs/5812029/Resources/Covid%20resilience%20report%202020.pdf?hstc=217144905.96a5abf4a612d90ff3b30daa55002f53.1607458326252.1607458326252.1607458326252.1&hssc=217144905.1.1607458326252&hsfp=2594050734>
8. Shifting Global Value Chains: The India Opportunity (June 2021), World Economic Forum In Collaboration with Kearney.
9. Q3 2022 BAROMETER: Supply Chains Might Get Worse Before they Get Better
10. Patra Debabrata Michael, Behera Harendra and Gajbhiye Dharendra,(April 18,2022), Measuring Supply Chain Pressures on India, Reserve Bank of India.