

## Self- Reliance Through Operations Management

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### Abstract:

India lags behind many advanced countries including China and is dependent on them for many imports. These are Covid-19 times and businesses came to a standstill all over the world. This problem is aggravated by the attack of Chinese People Liberation army in the Galvan region of Ladakh. Prime Minister Modi became alert and called for Atmanirbharata or Self Reliance. Indian economy and people are in the shadow of China and its digital machinery. It is time we took steps to reduce imports from China. Hundreds of Chinese apps are banned to counteract Chinese influence. Fear of war with China is looming large.

Manufacturing operations are very important as they contribute substantially to GDP. MSMEs, services and agricultural sectors are also important. A manufacturing firm turns inputs into useful outputs by a transformation process and this is central to operations system. All the elements of operational excellence are to be implemented thoroughly though it is very challenging choosing and blending all of them. Yet, Operations Management should go on exerting itself painstakingly with the ultimate purpose of business i.e. making products and providing services in order to make India great.

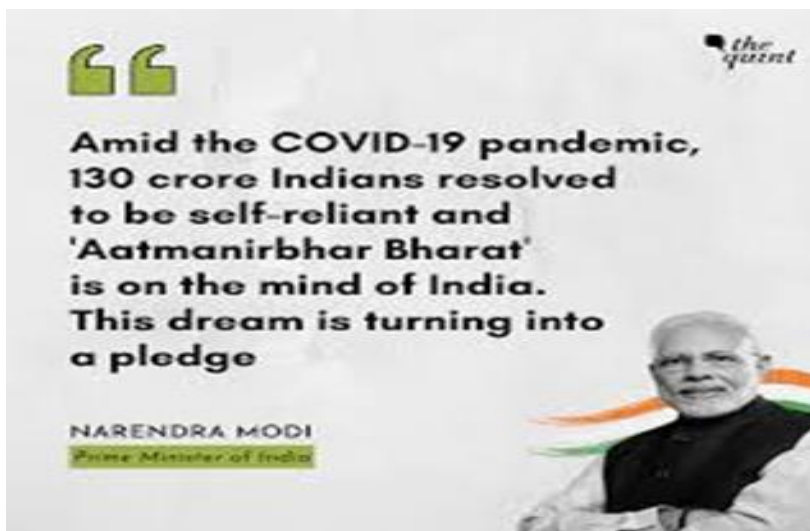
Key Words: Atmanirbharata, Self- Reliance, Innovation, Jugadd, Operations Mgt., Covid-19, Ecosystem

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As of now Indian industry is totally dependent on imports to keep manufacturing lines functioning. Our consumer technology systems are controlled by American tech giants like Google, Facebook, Instagram, WhatsApp and Twitter. India's second internet system is run by Indian start-ups using local funds and multi- national venture capital money like Paytm, Flipcart, Snapdeal, Ola, Practo, Zomato and Swiggy and these are controlled by Chinese investors Alibaba, Tencent and Ant Finance.

Baidu, Alibaba and Tencent, the domestic players of China are behind the third consumer technology system, the 500 Chinese tech start-ups running operations in India from China, operating 500 plus Chinese applications- they are dominating all the business operations.

In the midst of all these challenges, the mega pandemic Covid-19 erupted causing untold disaster and bringing businesses all over the world to a standstill. It is to be noted that India has lost nearly 12.5 lakh crore rupees worth output in the first quarter of the financial year. The Chinese border problem in the Galwan region added fuel to fire and the Government of India has woken up to the new challenging realities.



Prime Minister Modi gave a clarion call for Atmanirbharata or Self- reliance and exhorted Indians to be Indian and buy Indian. The Prime Minister noticed that India is bustling with Chinese start-ups from dating services, astrology services, live video streaming entertainment, cross border commerce utility apps, hundreds of Chinese digital lending companies operating in India to ride the Indian digital gold rush. So, he has resolved to protect India from Chinese domination.



Source: Google

Prime Minister Modi has announced Rs.20 lakh crore economic package for the country. As mentioned in Wikipedia, the MSME sector is an important pillar of Indian economy with a vast network of around 30 million units, creating employment of about 70 million, manufacturing more than 6000 products, contributing about 45% to manufacturing output and about 40% of exports. India has 6.33 crore MSMEs out of which 6.30 crore ((99.4%) are micro enterprises, while 0.52 or 3.32 lakhs are small enterprises and 0.007% (5000) are medium enterprises. They have contributed immensely to India's socio-economic development.

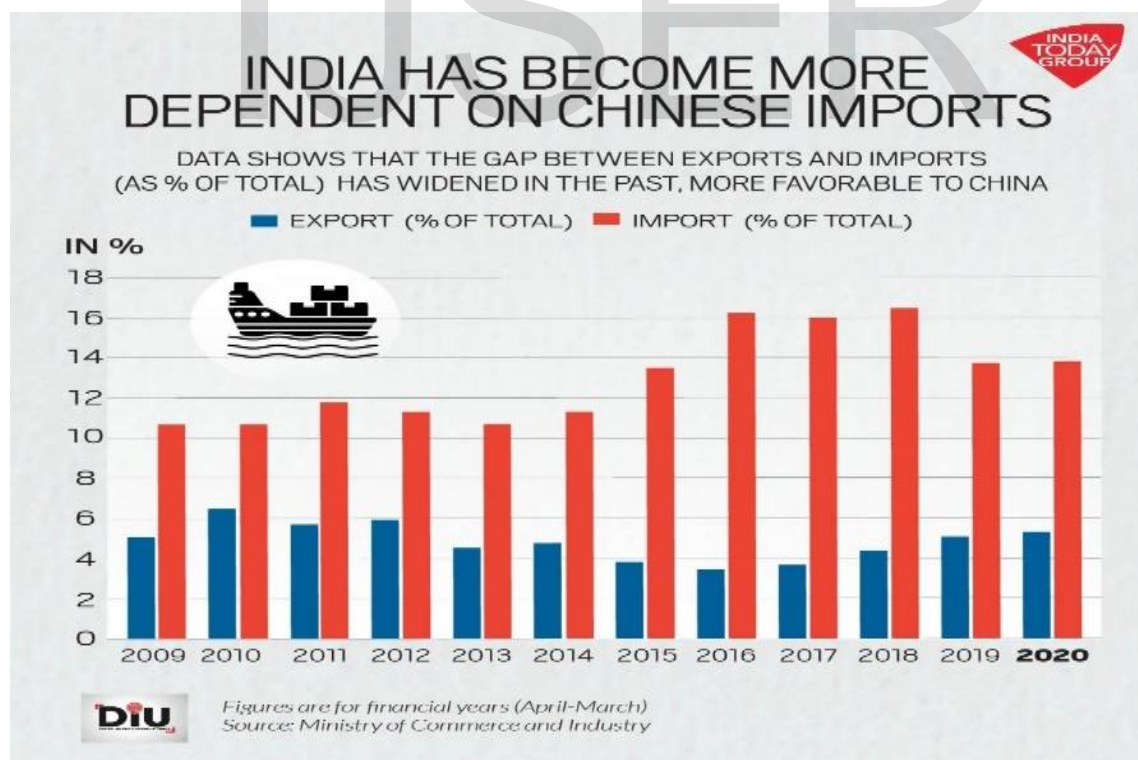
The union of MSMEs in Noida comprising 20,000 units decided to boycott Chinese products and equipment in their manufacturing process. The above visual mentions the 5 highlights of

Atmanirbhar Bharat- MSMEs, Health, Ease of doing business, Migrant labourers and Technology and the Rs.20lakh crore package will be distributed to these areas to sustain them in the Covid crisis. Ease of doing business is top priority and licenses are to be given liberally to all applicants by making Government regulations extremely flexible.

Crores of migration labourers have faced unemployment owing to the closure of Real Estate and industries and the functioning of these sectors is impossible without them. They also require Government assistance and they have a share in the Rs.20-crore lakh package. It is technology that came to our rescue in the Covid era and it also has its share in this package.

Prime Minister Modi has banned hundreds of Chinese apps like Tiktok, Club factory, Share-it and Camp Scanner. The ban has sent the digital content creation industry involving a revenue of Rs. 120 crores, into a tizzy. Many influencers felt the heat of the decision. For Tiktok influencers the ban is the equivalent of a demonetization of their digital identity and livelihoods. Hopefully, many Indian windows have opened up for Indian content writers.

We must first reduce our dependence on imports and investments from China, but it is not an easy job. Chinese investments into the Indian economy amount to nearly 8 billion American dollars in many sectors. They include Indian start-ups, tech companies, smart phones and applications, battery cells, pharmaceuticals, chemicals, automobiles, textiles, basic metals, machinery and service sectors like construction and transportation. We are all using the Chinese smart phones Oppo, Vivo, One Plus and Real Me and we are not able to think of dispensing with them. It is not easy to reduce dependence on China without developing home technology.



Source: Google

The graph given above illustrates how our imports have far exceeded our exports to China.

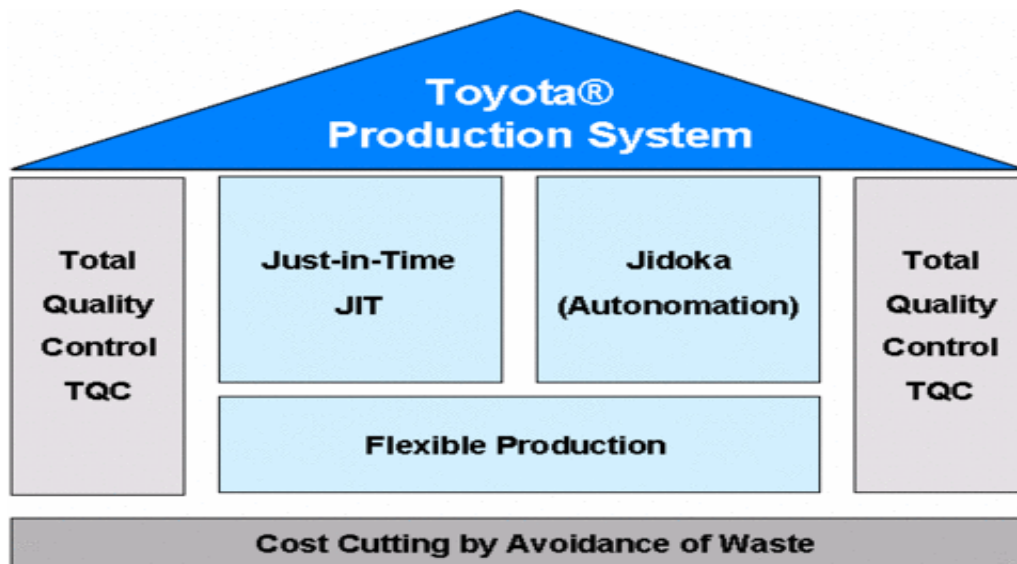
People thought that the Covid pandemic would bring the economic activity to a standstill, but technology came to our rescue by facilitating work from home (WFH). This made possible the continued operation of some services as the IT industry responded immediately by reorienting organisations and work processes. Already WFH has been in existence in sectors like education, call centres and business outsourcing.

It is a well-known fact that manufacturing, services and agriculture are the major economic activities in any country. In India manufacturing and services together contribute nearly 75% of GDP. In the recent years, growth in the GDP has been primarily due to the growth in these sectors of economy.

In this context, we should not forget that in this Covid era, the sector that has served India well is the agricultural sector. Because of the hard work put in by the farming community, abundant crops are raised, and this prevented Indians from starvation. So, boosting India's agricultural productivity and the self-confidence of the Indian farmers should be the topmost priority for ensuring basic food and nutrition security.

It is noted that management of manufacturing and service operations are important economic activities. A manufacturing firm engages in converting a variety of inputs into products that are useful for us. A manufacturer of electric bulbs will process raw materials using productive resources in a factory and produce a variety of bulbs. A service organisation on the other hand caters to our requirements and satisfies our needs through a service delivery process. Examples are- Management consultancies, Automobile garages, hotels, Hospitals, Banks and Law firms. Operations Management (OM) is a systematic approach. It addresses various issues that an organisation faces. Transformation processes where inputs are converted into useful outputs are central to operations system. Their goal is to ensure that the organisation can keep costs to a minimum and obtain revenue in excess of costs through careful planning and control of operations. There are five basic elements of operational excellence. They are: JIT (Just in time manufacturing), TQM (Total Quality Management), TPM (Total Production maintenance), Employee involvement and simplicity.

During the recent three decades, the world has been experiencing rapid advancements in both technological and managerial fronts. In the case of technological front, technologies such as RPT (Rapid Prototype Technique), Nano Technology and IT have been revolutionising the manufacturing practices. In the managerial front, the concepts such as TQM and TPM, BPR (Business Process Reengineering) and ABC (Always Better Control) have been triggering the modern companies to carry out continuous and continual improvements. With the availability of many tools, techniques and models in the technological and managerial fronts, the task of choosing and blending them for marching towards achieving this 21<sup>st</sup> century global machine is fast becoming a challenge. There are other techniques like the Six Sigma, Lean Management, Agile Management and Red Teaming which are also very important. Six Sigma is a new approach to process control, based on a set of principles that enables organisations to improve their quality to near zero-defect levels. Lean manufacturing used methods and techniques to produce goods as cheaply as possible, by using as few workers as possible and using JIT methods, where parts are delivered only when they are needed. Toyota's system of Lean Production cut down on waste because components were used as soon as they were delivered.



Source: Google

The above flow chart gives an idea of the functioning of Toyota production system. Here strategic decisions are based on first-hand understanding of customers. In Japanese language this is called “genchi gembutsu” which means “go and see for yourself”, an important phrase in lean manufacturing vocabulary. Total quality control involves everyone in the company, managers and workers take part in the improving performance at every level. JIT is a methodology aimed at reducing times within the production system as well as response times from suppliers to customers. Jidoka is intelligent autonomation (machine designing) with a human touch. Toyota production system is based on lean manufacturing principles. Both managers and workers work together to maintain quality, cut waste, maintenance of promptness and time from suppliers to customers. It is a flexible production system that allows freedom in case of changes, freedom to change the design of a product and product volume.

Agile manufacturing is a paradigm that often enables an organisation to quickly react in accordance with the dynamic demands of the customers by making use of appropriate technologies and management fronts. It is mass customisation, the phenomenon of evolving products and services as desired by every individual.

We hear about great entrepreneurs, innovators and start-ups. We also hear about innovations in Silicon Valley, Europe, South Korea and other places. The stories about companies like Apple, IKEA and Samsung are fascinating and interesting. But the India Inc. does not have many such stories. Yet, we should not be disheartened. Because there are some heart-warming innovations in India also. Ratan Tata, was Chairman of Tata Group (1991-2012), India’s largest business group, a conglomerate of some hundred odd companies and industries ranging from fashion to steel to automotive, to software- he strides the Indian business landscape like a Colossus. Ardeshir Godrej, the Chairman of the Godrej group worth 4 billion American dollars started a company that manufactured locks. In the 120 years since 1897, the group has expanded into making many different products and offering services from consumer goods and durables to property, technology, agri- products, chemicals and retail. Suresh Krishna (born in 1936), the Chairman of TVS Group and Managing Director of Sundaram Fasteners Ltd is India’s biggest manufacturer of two wheelers, three wheelers and auto components and parts. Asian Paints, Dr. Reddy’s Labs, Oberoi Hotels, Narayana Health are a few more big business enterprises.

We should derive inspiration from all these precursors. In the present scenario, we need many more such companies and personalities.

We now come to the start-ups in India. According to “India 2017, A Reference Annual”, the Start - up initiative aims at fostering entrepreneurship and promoting innovation by creating an ecosystem conducive to growth. Start-ups are driving the economic growth of the nation, creating employment and fostering a culture of innovation. The Government of India decided to help Start-ups in order to nurture emerging talent and entrepreneurship as larger goal of nation building.

We have already noted that India lags behind several Western countries in innovation. It is also mentioned that there are some people in India who are devoted to product- oriented research with exemplary success. They are shattering the stereo typical image of Indian innovation, that of Jugadd, that is adapting Western technology to meet the demands of the price sensitive local market. Economic growth leads to innovation and innovation, in turn, leads to further economic growth. Unfortunately, India does not encourage creative thinking to the same extent as in the West. In order to foster an environment for innovation, it is extremely important to highlight success stories of innovators. There are many innovators, some are highly qualified, some do not have even formal education. What unites them is their passion for what they are doing and their undying faith in their idea, inspite of numerous challenges. They represent a facet of new India, the India that refuses to accept defeat and is hell- bent on proving its potential. We salute to the spirit and will power of these innovators. Here are a few examples:

Anirudh Sharma, studied in an ordinary Engineering College and joined HP Labs in Bangalore. It is here that the idea of haptic (of sense of touch) feed -back based shoe for the visually impaired, came to him. After months of painstaking work, he developed the shoes and tested the prototype on patients at LV Prasad Eye Institute, Bangalore and it was a great success. Another innovator, Abhijeet Joshi, is famous for his implantable bio- sensor for diabetes monitoring. Arunachalan Muruganatham, who only studied at a Government School, became famous for making a low- cost sanitary pad making machine.

Coming to the subject of Atmanirbharata or Self- Reliance- ours is a connected world, a global village. Then, how can we reconcile this world order with the regional self- reliance or Atmanirbharata? But Atmanirbharata is a must and it is to be examined in different angles to arrive at a satisfactory answer. Everything should be done to see that India emerges as an important manufacturing base with ability to compete with China. It can be achieved only when India creates an ennobling eco system and makes ease of doing business a reality. We should also enlist the support of countries like the USA, UK, South Korea and Japan to be able to wean away from China.

To conclude with the words of Sangeetha Maheswari- our adaptability quotient determines our coping capacity during a crisis. Change is hard to embrace. Challenges measure our adaptability. According to her - Life is not measured by the number of breaths we take but by the moments that take our breath away. India should strive for such breathless moments when innovations and developments in industry, services and agriculture will totally reinvent India as one of the most developed nations of the world.

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