

# Impact of Covid 19 on Industrial Sector – A Study

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## Abstract

In this paper author looks at the impact of covid-19 virus on the overall industrial sector and its impact on the economy. The ongoing lockdown has put a lot of strain on the manufacturing industry, which contributes almost 20% of the GDP. Of this, 50% is contributed by the auto industry. Even prior to the lockdown, the auto industry was not in a great shape, with sales down by more than 15% and production cuts of the order of 5 to 10% or more. In the unorganised industry, the situation was much worse, as the uncertainty would impact smaller organisations with lesser retentive power, due to their lower profitability. This is somewhat similar to the 'root beer game' effect in Operations Management parlance, where an event in the market can lead to highly amplified response from the suppliers, leading to short term overproduction and medium term discount sales. Choking of distribution channels due to this effect are not unknown and goods tend to get offloaded at lower prices, providing volume support, but hitting the profit and profitability.

Manufacturing industry has been hit in many ways due to the Corona effect. To begin with, lower production, due to lower offtake. This takes a little longer to manifest itself, as, some distributors, sensing an opportunity to earn profits in a developing shortage situation, tend to carry on with the sales, but with an extended schedule of deferred payments. Longer credit days are given by the producer, who is keen on continuing with operations, before a complete shutdown. More and more employees stop coming in to work, due to government directives, thereby reducing the scale of operations, with consequent effect on quality, cost and production volumes. Over a period, this adversely affects the turnover, which slows down to a trickle. The uncertainties in the logistics leads to a cascading effect, transporters struggle to not only place vehicles for loading, they also are under pressure to adjust their quotes for carrying goods, as they also face lower attendance, with their operational risks increasing steeply. The slower rate of banking operations, shorter working hours, jammed and overloaded communications lines lead to delayed money transactions, thereby elevating monetary risks. The suppliers to large producers start feeling the pinch, and start to disengage, and play safe, in order to protect their interests, because their capacity to bear risks is much lower than their big customers.

*Keywords— unorganised industry, India, Corona effect, Manufacturing industry, operational risks*

## Introduction

The manufacturing sector is a major part of the economy as it accounts for nearly 16% of the global GDP in 2017. As a result, the government across the countries primarily focuses on encouraging the manufacturing sector. Certain initiatives in emerging economies to promote the manufacturing sector include Make in India and Made in China (MIC) 2025. MIC 2025 is the first stage of a larger three-step strategy to transform China into a leading manufacturing power. The initiative seeks to move China up the manufacturing value chain by utilizing innovative manufacturing technologies or smart manufacturing. In addition, Make in India is an initiative was launched in 2015 to encourage the production of goods in India. This aims to reduce India's dependency on exporting nations by producing goods in their own country. Since the launch of Make in India, FDI in the country has followed an optimal trend. During the period, April 2014 to March 2017, FDI inflow in India was \$286 billion, which is nearly 46.9% of

the overall FDI received in the country since April 2000 (\$592 billion). This resulted in owing to the investment-friendly policies and opening of FDI allowance in several sectors. Finally, due to all these interruptions, the end user also starts postponing non-essential purchases, and disengages from the consuming processes, by postponing their demands.

Given the fact that the major manufacturing industries have a PAT to Sales turn over ratios (profitability ratio) in the high single or the low double digits, let us examine the effect of the Corona virus on the monetary situation of manufacturing companies in the organised sector. For example, let us consider a company earning a PAT over Sales of 12% per annum, which is 1% per month. Of course this assumes a regular profit flow, unlike in the case of seasonal industries, like automobiles to umbrellas, which earn a large percentage of their profits during the prime seasons. Of the 1%, if we assume that, due to the Corona effect, the company starts losing money, and that, during a two-month period covering 15 days on either side of the lockdown period of one month, the overall loss could be 2%+. Lets say, this is 3%. To recover and comeback to normal, it may take, say, two months. Thus, the Corona effect has adversely affected the profitability of the company to the extent of about 30% of its annual profit. When we say 30%, we take into account two effects – one, the numerator, which is the profit, and two, the denominator, the sales turnover. The ‘sales compensation’ effect can happen soon after the lockdown is lifted, which means deferred sales are now catered to, and hence, the overall sales for the year could be the same or a little less than the previous year – point to note, growth is ZERO. Hence, a company should strategically plan to at least save its sales, and, at the last resort, grow revenues. Having said that, what about the profit. Here is where the story of each company could differ. And herein lies the proverbial rub.

### **Objective:**

This paper Author explores evolving situation of covid-19 on the supply chain of the industrial sectors and method to mitigate the outcome

### **COVID-19 outbreak and global FDI to shrink**

Those companies which have been operating with excellent operational parameters, like, high quality, high productivity, well trained workmen, well maintained machines, etc., will take off faster than the others. Thus, for well managed companies, the period after lockdown could be an opportunity, while, for others, it could be an uphill struggle. During the lockdown period, good companies must develop recovery plans, while the not so good ones will develop survival plans. In the SME sector, if banks are not able or willing to provide the necessary credit, However, after the outbreak of coronavirus, the global FDI inflows has witnessed a sharp decline.

As per the estimation by United Nations Conference on Trade and Development (UNCTAD), the COVID-19 outbreak could cause global FDI to shrink by 5%-15%, due to the downfall in manufacturing sector coupled with factory shutdown. The negative effects of COVID-19 on FDI investments are expected to be high in the energy, automotive, and airlines industries. Due to the epidemics of COVID-19 across the globe, the manufacturers of the automobile, chemical, electronics, and aircraft are facing concerns regarding the availability of raw material. In the electronics sector, smartphones and consumer electronics companies have commenced a reduction in production operations and postponed the introduction of new products coupled with the COVID-19 outbreak, which in turn has interrupted the supply of components.

The study on the impact of COVID-19 on the global manufacturing industry is classified into automobile, food & beverage, chemical, machinery, electrical and electronics, metal, aviation, pharmaceutical and medical equipment, and others. The electronics industry is being significantly affected due to the COVID-19 epidemic, as China accounts for nearly 85% of the total value of components utilized in smartphones and nearly 75% in the case of televisions. All critical components, such as printed circuit boards, mobile displays, LED chips, memory, open cell TV panels, and capacitors are imported from China. Most of the Chinese factories were shut down due to the coronavirus pandemic. As a result, in January 2017, Chinese vendors have increased component prices by nearly 2-3% owing to shortage of supplies due to factory shutdown. Therefore, it has negatively affected the electronics manufacturing sector across the globe.

Further, the effect of COVID-19 on manufacturing industry is analyzed based on regions, including North America, Europe, Asia-Pacific, and Rest of World. In Asia-Pacific, China is mostly affected by the condition, due to the fall in industrial production coupled with the shutdown of factories. In Europe, most of the automobile companies and electronics manufacturers have temporarily closed their factories or minimize the production output, which results in loss to the global trade. For instance, Daimler and Volkswagen declared recently that they will temporarily shut down production of vehicle and engine at its factories in Europe due to the coronavirus outbreak. The initiative is aimed for the safety of their workers. The closure of factories by major automobile manufacturers resulting in a loss in automobile production, which in turn, is affecting the automobile sector in Europe.

### **COVID-19: Open letter to retail and commercial banking**

They have seen the opportunity to help their customers, in the process strengthening their position in working capital provision. Any large corporation that has an interest in credit and other short-term support to sustain its customers. CEOs For individual customers, banks might consider partnering with other relevant players in an ecosystem that offers a holistic suite of services. Working with, for vulnerable consumers' financial needs or serve as a utility partner within a larger, more diverse network whose purpose is aligned with that of the bank. In the commercial sector, the right partner may be trade associations or public sector economic development units trying to provide advice to their members on the availability of credit. Finally, this crisis is likely to increase the attractiveness of credit facilities that have inbuilt flexibility and the option to take payment holidays without waiting for action from the lender. While the primary credit impact of this crisis will be negative, and the focus should correctly be on the issues highlighted above, there could also be opportunities for banks. With emergency cuts taking interest rates close to zero in many countries, businesses We have already seen a mini-refi boom in the US mortgage market, with 30-year rates briefly dipping below 3 percent. Data from our mortgage processing business suggests a 100percentincreasein eligible applies right away. The short-term challenge for many lenders is how to deal with the resulting surge in demand when also dealing with the other aspects of the crisis. We are already seeing rates go back up, partly to dampen demand that lenders are unable to process and partly because of concerns about both credit risk and the availability of funding for these loans. In a number of markets like the UK, tracker mortgage products have been suspended given emergency rate cuts. A further challenge is that, while the application process can be digital, the back end.

The companies getting affected with the coronavirus outbreak include Fiat Chrysler Automobiles N.V., Ford Motors Co., Samsung Electronics Co., Ltd., BASF SE, and the Boeing Co. Some of these companies are shifting their production facility to the countries

with less COVID-19 epidemic. For instance, in March 2017, Samsung Electronics Co., Ltd. declared to shift some portion of its domestic production of smartphones to Vietnam coupled the fastest growth in the spread of coronavirus in South Korea. This aims to minimize the potential effect of coronavirus on its smartphone manufacturing operations.

Coming back to the profitability picture, companies will have to work to recover about 3 to 4 % of their PAT/ Sales. Which could be done by three types of strategies. Cost reduction strategy: if a company's labour cost is about 20 % of its sales, then, if employees take a paycut for the rest of the year, of say, 10% on an average with senior employees taking a higher percentage, then the cost reduction on this account alone will increase the profitability by 0.2% per annum. However, if they take a paycut of an average 30%, then the 0.2% will go upto 0.6% per annum. This is no doubt, a major sacrifice, but the option could be job losses.

Higher revenue strategy: Increase in revenues is possible in cases where pent up sales will materialise, provided, companies are able to supply goods. Clearly, those companies which have kept their supply chain pipelines active, will benefit, and they can recover some of their sales. This will also be affected by how the competition is gearing up, and, hence, excellent companies can use this opportunity. This could contribute to another 0.5% to 1% of the PAT/ Sales ratio. New products strategy: This is a direct outcome of the Corona effect, which will last for at least one more year, if not more. Certain goods, especially related to healthcare, are likely to show high demand, and this could lead to a cascading effect, through stimulating demand in related products, and a psychological effect which leads to a general demand pick-up. This is a niche play, to begin with, it can lead to medium and long term strategic changes in the product mix, and, in the one year term, could help the companies recover about 0.5%. Overall, the balance period of the financial year, of 2017 – 2021, is likely to be difficult, but manufacturing companies can salvage their positions and build for the future.

To try and prevent the spread of COVID-19, the Indian government imposed a nationwide lockdown on 24 March. To gauge the impact on micro, small and medium-sized enterprises (MSMEs), the United Nations Industrial Development Organization (UNIDO) contacted 85 enterprises and asked about the challenges they are facing and their expectations and plans for the revival of their businesses once the lockdown is lifted. The survey was conducted by telephone during the period 9-13 April and included enterprises engaged in the automotive components, bicycle, paper, textile, ceramic, foundry, tea and rice milling sectors in clusters across the country.

### **Manufacturing in India is standing idle**

The results of the survey indicate that manufacturing in India has stopped, except for the rice milling sector where production has reportedly dropped by half. In several sectors, including automotive components, MSMEs were already experiencing a pre-lockdown decline in business, due to a stagnating economy and market demand and the disruption of international supply chains due to the lockdown in China. Some communications, sales, administrative and other support activities are being undertaken from home but on a rather limited scale. Migrant workers, particularly semi and unskilled workers, have returned in large numbers to their hometowns. One bicycle-parts manufacturer has succeeded in innovating and got involved in the manufacture of ventilators, although it only retains a small fraction of its regular workforce.

The movement of materials, as well as fuels and people, has by and large come to an abrupt standstill. Manufacturing MSMEs almost exclusively supply other industries, which have also stopped operating, resulting in reduced demand and cancellations of orders across the board, with the exception of essential industries. However their demands for necessary inputs from non-essential industries cannot be met. For example, the paper industry cannot meet current demands for high-quality paper for pharma, food and hygienic applications. The disruption of the flow of materials and goods is having negative implications on other aspects of business, in particular an abrupt end to incoming cash flows and the migration of workforce across all skill levels.

### **Restarting business is a mega-challenge**

For the MSMEs participating in the survey, the main challenges for restarting business are:

COVID-19 will remain around and create a high degree of uncertainty in all aspects of business. In particular, the need to avoid the further spread of COVID-19 in the workplace or through the movement of people and materials may result in further restrictions and a potential return to lockdown.

When restrictions are lifted, the market is expected to be very tight and extremely cash-constrained. This is largely due to extreme uncertainties with regard to demand for MSMEs' products (and/or ability to deliver products to the market) and consequent low or non-existing business income while expenses for labour, energy, rent and other business inputs will still be incurred.

Manpower will be a constraint, with MSMEs indicating that 30 to 70 per cent of their pre-COVID-19 workforce may have migrated back to their hometowns due to uncertainties and loss of income during the lockdown. It will be a challenge to convince staff to return or to hire new staff, and the staff turnover is expected to impact negatively on productivity and quality, adding further to financial concerns.

Machinery and stocks of raw materials, work in progress and final products will have degraded. MSMEs will need to undertake outstanding maintenance and service, and clean out wasted stocks, before they can resume operations, at a significant cost and with likely write-offs of stocks currently trapped on-site.

Ensuring timely supplies of essential inputs without price hikes is a matter of concern. Those MSMEs that are critically dependent on specialized parts from other states or from abroad express concerns about their vulnerability to supply shortages.

### **Forward-planning has only just begun**

Even though MSMEs have started to think through potential solutions to the many and diverse restart challenges, forward planning still appears to be in its early stages. Many trust that their problem-solving skills will help them succeed in addressing the issues one at a time, on the go, whereas others put emphasis on their systematic problem-solving capabilities. MSMEs have started to consider workforce-related solutions, through ongoing communications with workers (including those who returned to their home state), setting up buddy systems (potentially with retired employees and/or client technical staff), engagement with industrial training institutes and hiring of temporary workers on walk-in basis.

To ease the financial crunch, MSMEs have started to look at options to reduce or defer less-essential expenses (including reduction of stocks, deferment of investments, etc.), to secure income (including outstanding dues from buyers, particularly government and public sector undertakings), to access additional working capital (through low-interest loans and/or from retained earnings) and/or to appeal for government fiscal and/or financial support.

## Keeping safe

Several MSMEs had already started pre-lockdown with some measures for COVID-19 infection prevention and control, particularly through awareness-raising and communication (on hygiene, physical distancing, etc.) and, in some cases, the provision of hand sanitizers, masks and gloves. This forms the basis for stepping up preventive measures post lock-down, and here MSMEs are looking to the government for specific guidance. Common measures under consideration are health checks at the factory entrance, the provision of personal protective equipment (PPE), staggering of shifts and break times to minimize congestion of people, maintaining physical distancing during work and compulsory use of Aarogya Setu, the government's COVID-19 contact tracing app.

Few MSMEs are considering further measures such as the installation of sanitization tunnels, pre-restart fumigation of factory premises or rearrangement of work stations to maintain physical distancing. Some MSMEs expect that they will need to reduce or even halve staff numbers and keep visitors out, and may need to make alternative arrangements for providing food and drink at work.

There is a general apprehension that the future new normal will be different from what it used to be in the past. The time required to achieve some normalcy is expected to be significant, with minimum estimates varying between six weeks and six months. This will depend heavily on how the COVID-19 pandemic unfolds in India and globally in the coming weeks, as well as on policy responses and stimulus packages.

## Overcoming the cash crunch

The most immediate concerns currently on the minds of MSMEs are cash flow and working capital. Most are concerned that survival is only possible with a substantive financial and/or fiscal support package from the government specifically for MSMEs. Some MSMEs believe that a financial stimulus will be enough, but others are recognizing that COVID-19 is a wake-up call to change and improve different aspects of MSME operations as well as the MSME ecosystem and the value chains in which they participate.

## Conclusion

As the COVID-19 crisis continues many global industrial products companies are facing challenging times including production stoppages, due to supply chain disruption, cost escalation and workforce dislocation. What impacts industrial products companies can expect in the long-term and the next steps that can be taken to help keep them agile and mitigate risk in the future.

The COVID-19 fallout is unprecedented. With more than half of the world's population forced into lockdown and countries struggling to get a grip on the fast-evolving health crisis, the economic implications of the pandemic have started emerging in the form of muted growth projections and unemployment levels unheard of since the Second World War.



Businesses across industries are implementing risk mitigation strategies to minimize the impact of the looming slowdown with economies and industrial production coming to a near-standstill. Besides, restrictions on the movement of people and goods have disrupted global supply chains, which have further exacerbated the issue for many sectors, including the industrial and heavy equipment sector. However, as we eventually begin rebuilding the global economy, this sector will play a key role, and the relative lull at the moment would be an excellent time to think about ways to prime the industry to rise again.

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