# KnowGenix *Insights*

No.6.June 2020

# The Chemical Industry and COVID 19 era
## Survival strategies

*In the last four months there have been diverse views and opinions on how global and Indian economy is positioned to deal with the Pandemic which shows no signs of abating. Countries, corporations, communities are all at crossroads about the present and future contours of economy, their wellness and security. Forecasting the economic impact due to COVID 19 is now a major engagement across the government, academic and industrial world. Deluge of models based on diverse premises have made these forecasts an academic exercise rather than one which are evidenced based. This discussion briefly touches on the road ahead for the chemical industry and what it takes to survive during the coming years.*

## Chemical industry: facing a bleak year ahead

Globally chemical manufacturers are reducing capital and operational expenditure and manufacturing has been scaled down to around 40-50% due to labor shortage and supply chain disruption on the raw material side. Global production of chemicals dropped by 2.4% in February 2020, with the Asia-Pacific posting a production decline of 3.9% in the same month. According to the National Bureau of Statistics of China, the chemical manufacturing in China slumped by around 20% compared to the last year, while profits declined by 66%.

The chemical industry has been hit hard by the dual crisis — the oil price fall and the outbreak of COVID-19. While the historic deal pulled off by OPEC+ to slash global oil production by 10% might put an end to the prolonged price war, it would not be enough to offset the havoc created by the pandemic. Concerns persist with an oversupplied crude oil market having stagnant demand from chemical and refined product industries.

In calendar year 2020, the price of brent crude oil is expected average $35-40 per barrel, compared with $64 in calendar year 2019, as diverse forces converge, i.e. a global slowdown, output war between major crude oil producers, and demand contraction following coronavirus.

In the domestic market, the demand for chemicals is expected to slowdown in demand from key end-use industries such as automobiles, consumer durables, textiles and construction.

## Indian chemical industry: SMEs bears the brunt

Indian Small and medium enterprises (SMEs) which are engaged in the manufacture of chemicals and downstream products will face tough times as the industry braces for a decline in output and revenue in the next fiscal year

(2020-21). SMEs account for 30-35 per cent of the industry (in value terms), and are clustered around Gujarat, Maharashtra and the Delhi-NCR region. SMEs are looking at a fall in realisations owing to lower prices of inputs such as crude oil, as the cost savings will have to be passed on to consumers.

Since April MSMEs were already experiencing a pre-lockdown decline in business, due to economic slowdown and global market contraction coming on top of supply chain disruptions due to the lockdown in China. In India inadequately implemented lock down stifled movement of materials and labour severely. Chemical manufacturing MSMEs form the most important supply base for a host of end use segments which also slowly slowed down operating rates leading to reduced demands and cancellation of orders.

With many units operating at around 25-30% capacity due to raw materials supplies, disappearing credit lines, cash flow crunches, and inability to raise working capital and loss of skilled migrants at the plant operations the future of many stressed MSMEs in downstream chemical sector looks bleak. The export market for diverse chemicals was also severely impacted leading to low value realisation.

Indian Government polices to revive sectoral economies and build a level of confidence in the industrial and agricultural sectors have mostly been inadequate and needs nuanced approach to understand the different needs of each economic sector.

***Restarting remains a mega-challenge***

The slow acceptance that COVID-19 will be around for a long time has led the chemicals industry will have to revise its business and operational models to do business in a new era of uncertainty and poor economic sentiments. The chemical sector already beset with a host of complex dilemmas on the local and export fronts, poor manufacturing systems, EHS issues and inadequate supply chains is expected to bear a heavy impact of the present pandemic. To get back to business as usual seems a mirage at present. Looking at the present deliberations between the stakeholders no clearly defined road map has been put up by the concerned agencies or associations to generate a debate about revival of chemical economy in India.

When and if 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). The industry will have to manage low or non-existing business income while expenses for labour, energy, rent and other business inputs keeps on mounting.

The impact of skilled migrants heading homewards due to the lackadaisical policies of state Governments will impact states like Maharashtra and Gujarath more than other states. 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.

On the plant operations level one of the major impact has been on machinery and stocks of raw materials, work in progress and final products will have degraded leading to losses. The accompanying high cost of maintenance and service, and managing  wasted stocks, will be prohibitive and it is quite possible that companies are likely write-offs of stocks currently trapped on-site.

MSMEs are keenly aware that supply deliveries without price hikes will be inevitable as they depend on specialised services and products from other states and are quite concerned about their vulnerability to supply shortages.

Forward planning still appears to be in its early stages in the chemical sector and few of the companies have taken steps to being a  systematic approach to tackling the challenges. MSMEs have started to explore workforce-related solutions through intermediaries and staff welfare forums and focusing on hiring skilled personnel on a short term basis. Migration of skilled personnel have also had major impact on safety of plant operations; poorly trained replacement workers in hazardous operations like toluene distillation has led to around five industrial accidents in the last month.

The chemical companies have also begun to explore multiple options to deal with financial crunch by deferring less priority expenses and investments; to ensure revenues (by recovery of dues) and access additional working capital (through low-interest loans)

In addition companies have also decided to invest in personal protective equipment (PPE), staggering of shifts; the installation of sanitization tunnels; pre-restart fumigation of factory premises and changes in plant layout to lower the density of personnel in any location.

The chemical and allied sectors are slowly realising that business and revenue model will no longer be the same and cultural and attitudinal changes will be key through next few years. Most are concerned that survival is only possible with a substantive financial support package from the government specifically for MSMEs but there are companies which have begun to look at this phase as an opportunity to revamp their business model.

**Path to revitalising the chemical economy**

Chemical industry is facing challenges from multiple directions: disrupted manufacturing; falling productivity; shrinking demand; export slow down; and labour migration.

As governments engaged in poorly planned lockdown across the board without realising the sectoral implementation and impact on migrant workforce each state will have to now decide the nuances of economic recovery. With MSMEs still not out of the impact of demonetisation the present pandemic will pose major challenges despite the economic revival plan the Government has announced; key issues within this policy needs more scrutiny and review to deliver the desired results. The policies announced recently were pending for over a decade and a correction then would have set the industry on a competitive path. It is imperative for various sub sectors to develop a strategic pathway for the survival and sustaining their interests.

With supply chains in disarray the industry is facing a serious challenge to optimise their value chains. Given that the pandemic is here to stay industry needs to realise that it is not going to be business as usual. The key priority before the industry is to not only look at business continuity is maintained but also develop new functional constructs for a new normal their businesses. What is perhaps the major challenge for a traditional industry is to conduct its business in rapidly fast changing and uncertain ecosystem. There are no industry wide acceptable path. Each company will have to develop their own response to ever changing scenario.

Captains of the Indian chemicals industry are exploring options specific to their companies to tackle operational and supply chain disruptions, slowing consumption, low labour productivity, tightening credit markets, and raising funds. In addition liquidity crunch and capital resources, export and import risks have added to more challenges.

Indian chemical industry which has been highly dependent on Chinese imports face new disruptions in their operations and supply chains. Across the chemical chain and more particularly in Pharmaceutical Chinese imports dominated. With the present global and Indian anti sentiments towards China the impact is quite overwhelming. Over a decade of reliance on China without laying down a competitive base locally is bound to have far reaching impact on the Indian industry.

Given the growing negative Chinese sentiments most of the segments face crucial challenges over the next 2 years if the Chinese sources dry up. On the other hand the Indian chemical industry could use this opportunity to establish a robust manufacturing platform for advanced intermediates and downstream products.

**Multiple strategies needed**

Dealing with the present and immediate short term future the Indian chemical and allied industry will need multiple pathways to survive and consolidate their business and financial stability.

It will have to evolve new approaches to absorb financial impact through 2021. It will not be possible without risky and innovative ways. Capturing value in a disrupted value chain will pose new complexities in manufacturing, customer management, and more importantly a leadership crisis where the industry is not yet geared.

Efficient liquidity management, proactive cost optimisation, and keeping credit lines in order is imperative for the Industry where MSMEs account for a major share of output. Despite the Government stimulus it is yet unclear as to how the Indian chemical industry plans to reorganise itself to meet the export and local market commitments.

On the financial front some of the key issues that the chemical industry should consider are:

- Assess shifting capital needs and availability
- Review debt structure, focusing on optimization, and credit needs
- Ensure adequate liquidity given shift in business dynamics and demands
- Shift capital allocation and secure short-term credit to ensure liquidity
- Create contingencies for defaults among product suppliers or distributors
- Perform working-capital assessments across your portfolio
- Assess current portfolio risk factors
- Undertake greater diligence around assessing new risks

Many companies across agrochemicals, pharmaceuticals, personal care etc., are engaged in revamping portfolios, rationalise staff functions and marketing infrastructure. In the speciality space suppliers will be forced to develop framework for customer and application integration. One of the most challenging tasks before the chemical companies is to balance supply chain disruptions.

Across diverse sectors decline in growth is projected and in particular in those sectors which supplies into transportation, construction and building sectors like C4 derivatives including butadiene, synthetic rubber and acrylonitrile-butadiene-styrene, which are largely used in tires.

While demand for products from major industries has decelerated, companies have been leveraging their capabilities to foray into tapping the growing demand for disinfectants, antiseptics and personal protective equipment; into protective packaging need for preventing contamination of food, personal care and medical products; into intermediates for safety products needed for restricting the spread of the virus; into shifting from fuel-grade alcohol to neutral alcohol for hand sanitizers and other disinfectants. Plastic manufacturers for sports gears are making medical shields. Leading players such as Dow, Huntsman and INEOS are ramping up the production of hand sanitizers. Honeywell plans to open a new manufacturing facility to produce protective masks, while Solvay partnered with Boeing to produce face shields in response.

**The way forward**

Chemicals companies, like many other manufacturers, are exposed on multiple fronts to the disruption wrought by the COVID-19 outbreak. The long-ranging impact of the COVID-19 pandemic is yet to be understood. A number of industry sectors have been severely impacted and there are changes to daily life, accelerated by the pandemic and supported by technology and innovation, which companies will need to adapt to.

The chemical industry faces critical challenges. Low manufacturing output, loss of skilled workers at the plant level; most of them migrants have brought many manufacturing plants to a standstill. Inadequate thinking in implementing lockdown and the following exodus of skilled operators out of manufacturing hubs of Maharashtra and Gujarath is expected to damage the economic revival of these states in multiple ways.

Chemical manufacturing plants have a high worker-density and majority of operations cannot be done remotely. New technologies in production facilities with minimal man machine interactions need to be considered. Implementation of automated, data-science augmented and remote-controlled production guarantees a more efficient operation with reduced efforts. In addition, advanced digital capabilities that integrate the production operation with supply chain and logistics counterparts are being used.

Given that the pandemic situation is likely to stay through 2021-22, chemical companies have been exploring new R&D tools like data analytics, advanced learning, process and data integration, Intelligence Enterprise management to name a few.

There is no defined path for the chemical companies to choose or adopt. Those companies which are nimble, accept novel leadership approaches; responsive to change; ready to adopt disruptive approach and keen to take the risks will manage to hold their own.

Author: R.Rajagopal