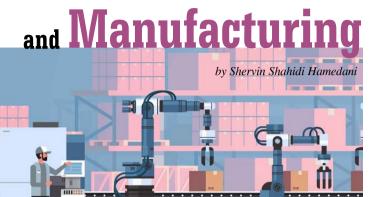
The Covid-19 Pandemic



he COVID-19 pandemic is damaging health systems worldwide. The fast growing demand on medical supplies, facilities and services has fully burdened health systems globally in a way that those systems are not capable enough to function effectively. The outbreak and its consequence will be getting worse as the current situation is only the tip of the iceberg.

The coronavirus pandemic is having a deep and severe impact on the world economy. Global stock markets have dropped, with Wall Street's main indexes facing their worst time since the global financial crisis in 2008. This could be a sign of sinking the world economy into a recession this year with an expected loss of trillions of dollars of global income and more specifically with huge destructive impact on developing economies.

The economic fallout from this outbreak is continuing and increasingly difficult to predict, but there are symptoms to show things will get much worse before they get better. This is where several new policies and actions will be made by countries and their governments which some might even be made for the first time in their history. While those policies are prepared for fighting against the disease and mitigating its impact, some of those come with difficult economic trade-offs. Economic control by governments

will be expanded, and many small and medium size players in economies may take their last breath.

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This year, consumption will be

expected to become almost non-existent. Additionally, as personal income is expected to decline because of the virus, consumption will also therefore slow down. For example, the epidemic will certainly affect the release of new technologies and products such as 5G mobile phones, and then affect the entire industry chain and ecosystem. The majority of markets already have seen many of their offline marketing activities cancelled, and many events, programs and plans have been widely postponed globally.

Manufacturing

COVID-19 disruptions are having a major impact on manufacturing in the short-term, but the long-term effects remain unclear as the virus continues to have a global demolishing impact. Manufacturers are facing different challenges in relation to the coronavirus outbreak.

Smaller manufacturers are starting temporary shutdowns in response to the coronavirus crisis. Although a few of manufacturing fields like healthcare are gaining substantial advantages from the current situation, the

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No matter manufacturers are active in which field or industry, if they cannot adapt their operations and businesses to this challenging condition they can't keep producing for now and they won't survive. As global recession is becoming increasingly likely and supply chains are facing major disruption. Supply-chain disruptions due to the coronavirus are likely to increase the cost of business for manufacturing. Therefore, those manufacturers which have more

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dependences on international supply chains, are at a higher risk and the biggest threat to supply chains is the failure to access labour during this period. This is where automation and advanced technologies could play crucial roles for manufacturers. Smart manufacturing, industry 4.0 and disruptive technology are now proving their importance more than ever.

For some highly automated industries or enterprises, their production activities have been running as normal, and not affected by the epidemic interference. But those industries with a large number of workers, and a lower degree of automation have faced great challenges and continue to encounter many more technical and commercial issues. After the wave of recommencement of work, labour-intensive manufacturing will face higher uncertainty because of the epidemic. Before the Covid-19 pandemic, the global manufacturing industry was in the midst of an evolution. New consumer needs, smart manufacturing, big data, artificial intelligence and many other disruptive technologies and an uncertain trade environment were just a few of the factors businesses have been dealing with over the past few years. But now, after the Covid-19 pandemic, the situation for manufacturers has become much more challenging, which is affecting supply chains and disrupting manufacturing operations around the world. This is the time for businesses to embrace technology more than before and to embed smart solutions in their day to day activities, because technology is unsuccessful when not deployed across all operations. Smart manufacturing is not anymore a buzzword but COVID-19 outbreak proves to us advanced technologies are now crucial parts of the manufacturing industry while supporting businesses to stay alive and relevant.

As highlighted earlier, within industries, the pandemic issue and its consequence starts at the very bottom of the supply chain. The industries who are frequently instructed to source their raw material, tools, or machinery from countries like China, Italy, Germany or the US are expecting to experience production delays and the delay may grow depending on the duration of the pandemic and its growth in other countries. As these delays make their way up the supply chain, it will impact manufacturers' ability to produce new products based on their current schedules and this could be a disaster by itself.

In conclusion, countries' GDP, investment, consumption and exports will all be strongly impacted by the epidemic, and in the short term, it may also lead to increased unemployment and commodity prices. We all should be prepared for a major impact on manufacturing worldwide. Businesses have already put plans in action, but the worst is yet to come. No one knows exactly the exact impact of the pandemic until sometime in the future as the outcome ripples down the supply chain.