A guide to minimize Supply Chain disruptions with rapid-response ML solutions on Google Cloud

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Problem : Supply Chain Disruptions caused by COVID-19

The current market landscape is increasing supply chain complexity. As physical supply chains extend their geographic scope, leaders need to leverage low-cost sourcing options and gain access to emerging markets.

What is more certain with COVID19 is that it has created multiple economic and financial ramifications from raw materials to finished goods. The most vulnerable companies are those heavily relying on factories operating in the impacted areas, producing spare parts apart from other finished goods.

At Pluto7, we engage with some of the Fortune-100 enterprises with the most complex supply chains in a multi-year AI journey. We help them enable the right technical and foundational capabilities to optimize ROI while accelerating a digital journey into the 4th industrial revolution.
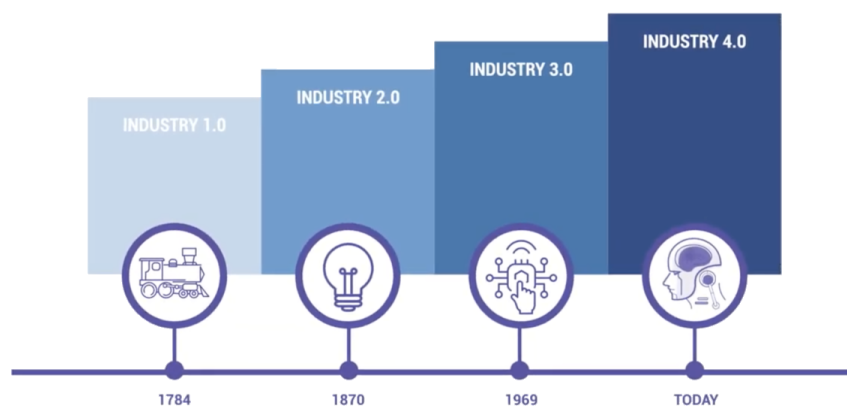
[Click here](#)
to watch video:
"Factories of future"

Companies in retail, CPG, pharma, hi-tech and logistics are looking at scenarios which they have never faced before. Subsequently, leaders have to make a large number of complex decisions quickly. Here are some key facts that have paved the way for disruptions in supply chain due to COVID19:

- The typical organization usually has a major part of its finance tied to very few critical strategic suppliers.
- A modern supply chain is not linear involving a manufacturer which can suspend or resume production and instantaneously start delivering products, instead it is a complex web of entities in the value chain
- The conventional lean methodology for inventory replenishment is unable to adequately respond to tough situations such as the COVID-19 scenario.

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In the past, mounting pressure to cut supply chain costs motivated companies to adopt lean manufacturing and outsourcing. This has backlashes in the current times of a global pandemic as Supply chain management needs agility more than ever.

When managing a supply chain, every leader knows that managing it is like leading a musical symphony with multiple instruments like demand forecasting, supply planning, excess management, shortage management, safety stock, delivery leads times, manufacturing lead line, quality, cost, labor and various other aspects. Each of these instruments needs optimization to get the right quality and level of output meeting SLA's across the value chain.

To optimize you need two things:

- Visibility across your entire supply chain. This means you need data insights from every step and stage of your supply chain process. Therefore, centralizing your data is more important now than ever. Google Cloud provides one avenue to centralize your data.

- The ability to make rapid decisions based on business real time data and insights is crucial. The larger and more complex the supply chain, the higher the need for automated decision making. Automation becomes more critical during disruptive times.

Challenge: A Control Tower view of your centralized data maintains stability during Supply Chain Disruption.

A supply chain "Control Tower" is a central hub with the required technology, organization and processes to capture and use supply chain data to provide enhanced visibility with business real-time data for faster decisions.

Pluto7 Supply Chain solutions on Google Cloud provide the scalability, performance and predictive analytics capabilities for enterprises which are essential in handling these supply chain disruptions. We enable AI-based decisions at scale and near business real time.

Demand Forecast	Allocate and Procure	Shipments	Sales Order Tracking	Service Recommend
• Demand Forecast • Accuracy • Demand Sensing	• Available to Promise • Purchasing triggers • Inventory Visibility	• Track Shipments • Shipment Costs • Shipment delays	• Sales insights • Order Status visibility • Order Allocation	• Recommend Services • Guide Service Agents • Plan Inventory

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SOLUTION : ENABLE A SUPPLY CHAIN CONTROL TOWER LEVERAGING PLUTO7 SOLUTIONS

Pluto7 has 6 accelerated supply chain solutions available - some of them are available on the Google Cloud Marketplace. These solutions help global leaders build the foundational blocks for scenario planning as well as to respond correctly, getting up to speed amidst the COVID-19 outbreak.

Value Chain ML (video) - Provides End-to-End visibility into the business with Machine Learning assisted decisions at each stage of the supply chain nodes in the network to maintain supply & demand balance.

Marketing ML (video) - Provides campaign effectiveness with insights into customer behavior in regards to marketing efforts carried out by the organization, all aligned to supply chain, demand and supply. (web page click here)

Sales ML (video) - Improves sales productivity reducing customer churn risk by identifying products that benefit the company and aligned to the existing supply inventory availability.

Demand ML (video) - Drives Forecast Demand Accuracy so that supply is planned better. (web page click here)

Supply ML (video) -Provides an effective way of managing the excess and shortage of supply inventory.

Preventive Maintenance ML (video)- Helps to effectively use the labor and machinery in the manufacturing plants to produce the supply by predicting the remaining useful life of a machine or industrial equipment. This solution is a Gartner award winner, implemented by ABInBev.(web page click here).

These 6 digital solutions when rightly brought together with a unified data strategy allows businesses to successfully apply AI and Google Cloud technologies.

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