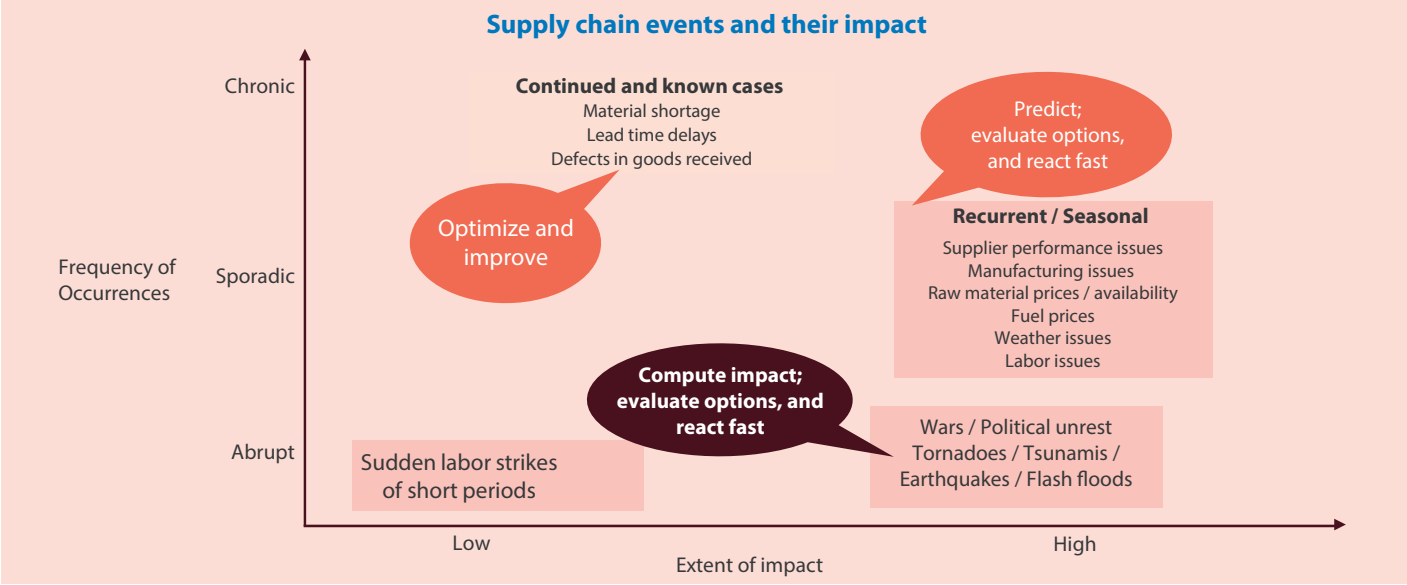
INFOSYS SUPPLY CHAIN EARLY WARNING SOLUTION

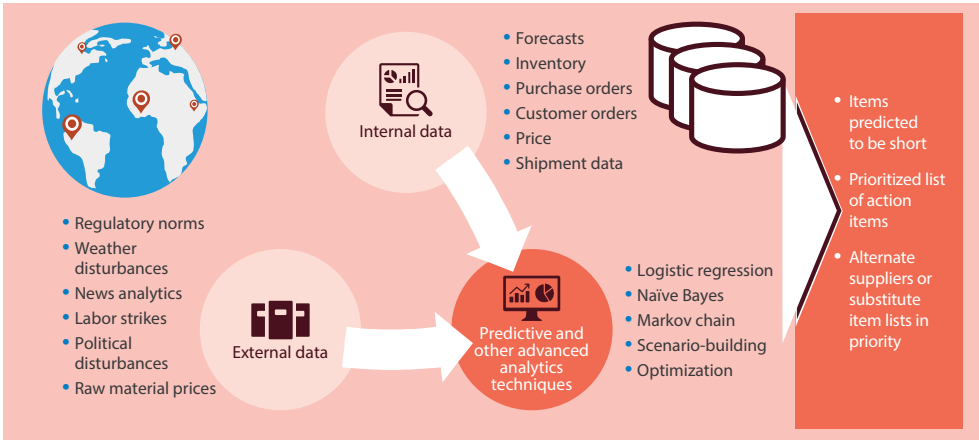
Insulate your business from disruptions

Global sourcing, although crucial for success, increases a company's vulnerability to supply chain disruptions, such as weather patterns, political unrest, fluctuations in currency and fuel prices, etc. These disruptions lead to cost escalations, dissatisfied customers, loss of trust, and costly litigations. Therefore, it becomes imperative for organizations to identify and predict relevant disruptions, forecast their impact, and take timely and appropriate preventive action.



Infosys Supply Chain Early Warning solution

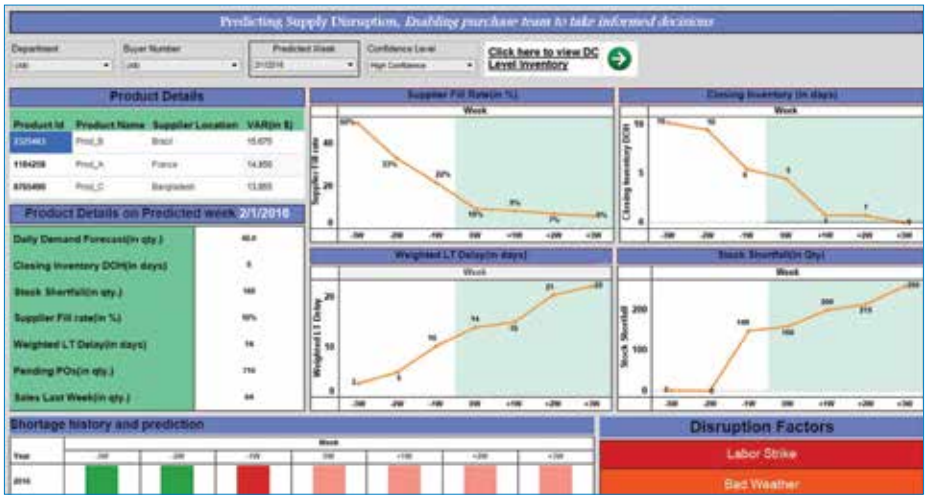
Our technology platform merges enterprise and external data into a boundaryless data platform. Its tried-and-tested machine-learning models use predictive and prescriptive analytics to forecast disruptions and prescribe alternate options.



Supply chain executives can make accurate and fast purchase decisions using the list of products in short supply through interactive dashboards. They can also gauge expected value at risk for a particular product by analyzing principal KPIs such as fill rates, lead-time delays, days of inventory on hand, pending purchase orders, etc. In addition, these executives can also analyze other key factors using:

- Enhanced geospatial view of inventory for quick impact identification and action
- Prioritized list of alternate suppliers / substitute items
- Explore options for express shipment / intra-company stock transfer based on predicted inventory positions

Solution features



Boundaryless architecture

An open-source-based, boundaryless data platform that can be seamlessly integrated with existing cloud or hybrid infrastructure.

It provides a source catalog with pre-built adaptors to various data sources, leveraging virtualization and data ingestion for creating the data intelligence grid.

UI-based information modeling tool

Creates networked data products across various dimensions. Data scientists can further create their own data products to meet analytics requirements.

Model library and analytics workbench

Augments, refines, and enriches machine-generated insights to build Supply Chain Early Warning graphs. For example, trends for lead time, trends for inventory DOH, prioritized supplier list, etc.

Interactive dashboards

Allows exploration, search, visualization, zoom, and more of predicted supply chain disruptions.

Business benefits

Improved customer service levels

Rework procurement plan for products predicted to be short to enhance stock availability of these products thus reducing out-of-stock situations.

Increased revenue

Minimizes sales loss due to prediction of supply shortage in advance.

Better margins

Increase ease and accuracy of purchase decisions which lead to reduced instances of express shipments.

Lowered working capital

Reduces the supply variability and leads to lowered safety stock levels.

Case study

The client is a large pharmaceutical distributor who was struggling with supply shortage. We deployed the Supply Chain Early Warning solution to enable **reduction in sales loss and increase in service levels**

- Identify and source internal and external data and create predictors of supply disruptions and/or validate predictions
- Link shortages to associated variables based on a common bill of materials and to identify problems with cascading impact
- Built various models such as logistic regression and Markov chain to predict shortages, up to six weeks in advance. Then validated accuracies and found logistic regression giving better prediction for sample data
- Built a tableau-based tool that provided prediction output to the buying teams for intervention and focused on high-confidence items

For more information, contact askus@infosys.com

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