

Ford boosts operational efficiency and reduces costs by more closely monitoring part container shipments

Solid logistics planning and precise timing is necessary for any manufacturing facility that relies on a complex network of suppliers to keep production lines running smoothly. Manufacturing vehicles in particular involves keeping track of millions of moving parts. The critical flow of part containers is therefore a substantial part of the challenge.

Massive supply chain

The Ford Motor Company, one of the world's largest automakers, has 31 manufacturing facilities throughout North America and a massive supply chain. Shipments of part containers move from suppliers through receiving docks and warehouses to production lines each day. They then go back to suppliers and the cycle continues.

To ensure operational efficiency, these containers must be in the right place at the right time. Any delay throughout the supply chain can lead

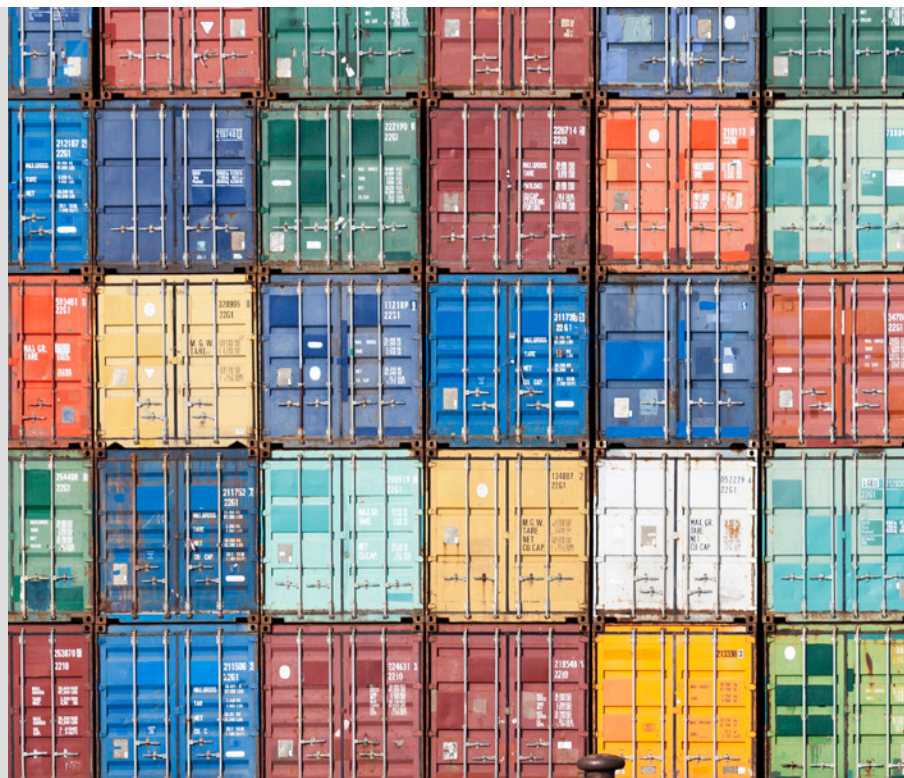
to rapid and severe financial repercussions for the automaker.

Complicated manual process

Ford's supply-chain management team (SCM) realized it was incurring excessive costs from dealing with inaccurate inventory levels and part shortages. They were using a complicated manual process with Microsoft Access and Excel spreadsheets to manage thousands of weekly shipments and couldn't keep ahead of the issues.

SOLUTION OUTCOMES

- › Automatic alerts if a key performance indicator moves outside an acceptable range
- › Daily data updates to identify shipping issues and reduce supplier claims for lost containers
- › Identification of mislabeled or unreturned containers to avoid supplier shortages
- › Expendable container notifications to highlight possible supplier issues
- › Views into shipment locations along the return route to ensure reliable reporting of missing returns



“We were annually spending millions that we didn’t need to – this was a preventable cost that we needed to get under control, and fast.”

This resulted in their getting charged premium freight costs, using too many expensive and wasteful single-use containers, and incurring claims for lost containers.

Ford’s material planning and logistics department, forever on the lookout to improve daily material handling, saw this problem as a significant opportunity to improve container management efficiency. According to Ford’s SCM Container Manager: “We were annually spending millions that we didn’t need to – this was a preventable cost that we needed to get under control, and fast.”

Valuable business insights

Ford went looking for a solution and discovered the analytics firm Incite, who appeared to have the skills Ford needed to wrangle the problem. The two teams started a conversation about how to identify inefficiencies across Ford’s North American manufacturing facilities. Ford liked that Incite immediately understood that in order for any solution to be successful, operations personnel at corporate headquarters all had to be on the same page. Their needs included accessing the same information quickly across all job functions, visualizing key metrics in an understandable and unambiguous way, and communicating actionable information downstream.

“Now we have a tool that doesn’t just collect data; it brings issues to our attention that could turn into serious problems and gives us the analytics we need to fix them. It’s a game-changer.”

More importantly perhaps, the Ford team needed to know exactly how to apply a solution to their business in order to implement improvements.

The result of their collaboration was the Container Management Analytics Solution. Its goal was to achieve a return ratio of 1:1 for their containers in order to prevent expedited and premium freight costs. Its financial goal was to remove \$1.25 million in costs the first year and \$3.75 million in the second.

The solution quickly revealed valuable business insights, presenting them through an intuitive dashboard:

- › Automatic alerts so that if a key performance indicator moves outside an acceptable range the operations team gets notified for immediate action
- › Daily data updates to help identify shipping issues quickly, reducing claims from suppliers for lost containers
- › Identification of mislabeled or unreturned containers to help avoid supplier shortages, one-time use cardboard containers, and premium freight charges

- › Expendable container notifications to highlight possible issues with a supplier’s container supply along with identifying any extra costs
- › Views into shipment locations along the return route to ensure reliable reporting of missing returns and avoid costly container shortages

These actionable insights and improved methodologies helped Ford’s complex network of manufacturing plants and suppliers better manage the critical flow of containers. By working proactively, the supply-chain management team was able to address problems before they impacted operations or grew bigger. The solution and overall approach empowered Ford employees to not only spot inefficiencies and imbalances, but also to take action and eliminate them. Ford’s SCM Container Management Manager added: “Now we have a tool that doesn’t just collect data; it brings issues to our attention that could turn into serious problems and gives us the analytics we need to fix them. It’s a game-changer.”



Ford’s dashboards quickly reveal valuable business insights, such as costs associated with suppliers’ mislabeled or unreturned containers.



Reliable data and actionable insights help Ford’s supply-chain management team address problems before they impact operations or grow bigger.

Reduced costs and smarter business decisions

Ford managed to meet their first-year goal to reduce freight costs and container claims and is on track to further reduce costs in their second year by upwards of \$3.75 million. In the process to get here from there, the automaker has made many improvements.

Not only are there more efficiencies across supply chain stakeholders and fewer silos but, more importantly, Ford is able to make smarter day-to-day business decisions based on reliable data. The new solution continues to receive high marks and has been widely adopted by SCM.

Future expansions

Ford continues to use and enhance their Container Management Analytics Solution. Plans are in motion to expand its application to multiple overseas markets. Plans also include expanding the capability to focus on further reducing the use of disposable expendables containers in an effort to reduce environmental impact.