

Data Dashboards: Visualizing Healthy Supply Chains

Data dashboards—digital tools that provide a visualization of key performance indicators (KPIs) of process—are quickly becoming a preferred tool for supply chain management. Dashboards can be used at any stage of a supply chain or process to assess its performance. In order for a dashboard to effectively support a supply chain, it must measure the appropriate KPIs, including orders fulfilled or products produced in a time frame, and display data in an easy-to-interpret format.

There are many areas within a process from which supply chain managers can glean data, and these areas vary from industry to industry. For example, a call center might track the productivity of its operators so that managers can tell if certain operators are falling behind on their goals. A bakery, on the other hand, might track rates of usage for ingredients and rates of sale for different items so that their inventory and rates of sale stay in sync. The goals, key metrics and reporting needs in these industries differ, so dashboards should reflect these differences.

Same data, new look

“KPIs aren’t new,” notes Jim Boutilier, National Supply Chain Engineer at Airgas, an Air Liquide company. “Data dashboards are simply a new way of displaying the information in the supply chain more intuitively.” Some popular KPIs in the industrial gas business include cylinder inventory management, usage rates for gases, usage rates for personal protective equipment and other hardgoods, spend per area and spend per project.

According to Boutilier, “Dashboards are becoming more and more prevalent. With smartphones and trends towards visual media, the visual representation of data is becoming more popular in industry and business.”

Improvements to dashboards show promise for maintaining efficient and effective supply chains. No matter the industry, dashboards are an excellent way to bring your spreadsheets to the next level.

But I like my spreadsheets

While spreadsheets can display more data than dashboards, the data is harder to understand and interpret. Without dashboards, supply chain managers must sift through spreadsheets that hold all of the data that is tracked as part of a process to find the most relevant and telling information. “You’d have to try to identify those KPIs within the spreadsheet,” said Boutilier. “You might have some sort of spreadsheet control tool or macro to interpret the health of the process, but there would not be a visual representation of the data.”

Dashboards and spreadsheets can work together to provide a lot of information in an easy-to-interpret way. Despite the sophistication and ease of use that dashboards boast, spreadsheets are still the engines behind dashboards, fueling them with data. If, for example, a dashboard shows that something is wrong within a process, the supply chain manager can look “under the hood” of the dashboard to get a more in-depth understanding of the underlying issue. According to Boutilier, “The dashboard uses the same data that you would find in a spreadsheet to give a snapshot of how a process is operating. Dashboards help to eliminate the interpretation step of the equation, but you can still take a look at the more specific numbers if you need to.”

Because dashboards vary between applications, they are fully customizable to specific needs. “Dashboards are built based on a customer’s specific requirements and needs, giving customers a line of sight into the key factors that impact their businesses,” said Boutilier.

Best practice tips

If you’ve already adopted a dashboard as part of your supply chain, ensure that your system is working optimally to make your job easier.

Choosing the right KPIs is essential to effective dashboards. If a supply chain manager decides to track data that isn’t relevant to the efficiency

of the process, the dashboard would not be an accurate tool for intercepting problems and maximizing efficiency. Tracking these KPIs can help ensure that projects are finished on time and within budget. Despite the wide range of KPIs available for tracking on a dashboard, an effective dashboard requires that a supply chain manager prioritize certain KPIs over others. After all, a cluttered dashboard defeats the main objective of clean and clear visuals.

Tools for data collection

Having strong data collection tools at key touchpoints throughout a process is another important component of a dashboard. For example, a bakery must consider how it will measure its ingredient inventory and sales. In order for a dashboard to maximize the efficiency of a process, its data collection tools should also be efficient. If the data fueling the dashboard is inaccurate, the dashboard itself is also inaccurate. For example, measuring ingredient inventory with a broken scale makes the whole dashboard useless.

Looking to the future

In addition to taking the pulse of a process, dashboards can also help supply chain managers anticipate problems before they arise. A well-designed dashboard can alert a supply chain manager to an upcoming shortage based on usage and inventory rates, which makes it possible to find a solution before the problem even arises. “If you design the dashboard to include forecasting, it’s not just a snapshot of where you are. It becomes a tool that allows you to be more in control of your process by understanding historical data,” said Boutilier.

As dashboards reach mainstream adoption in both industry and business, advancements are sure to continue. For now, daily updates are more realistic than real-time updates, but as dashboards become more widespread, it’s likely that the technologies supporting them will become more sophisticated and support supply chain managers in their goal of providing better overall insights for the individual user’s supply chain requirements.
