



STREAMLINE YOUR SUPPLY CHAIN WITH DATA

How visual analysis helps eliminate operational waste

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editor's note

Dear supply chain professional,

No one has to convince you that data is a blessing – and a curse. And the vast amount of data available to you is growing exponentially every day.

While you know valuable insight is in there somewhere, getting to it can seem impossible. Disparate data sources and the need to provide multiple stakeholders with personalized dashboards are just two challenges standing between you and a more efficient supply chain.

This Tableau eMagazine provides a guide to convert your data into actionable insight—no matter how many data sources you have and how many stakeholders you must satisfy.

You'll learn 4 paths to better insight, the importance of visualizing your data and 5 best practice recommendations for building great dashboards. You'll also hear how companies as diverse as an auto parts retailer, a children's hospital and a roadside assistance leader used these techniques to drive time and cost out of their supply chains.

Put your data to work to help optimize your operations.

Happy analyzing,

Malia Hardin
Tableau Software



Create a data-driven supply chain:

4 paths to insight

You've got one goal: optimize your supply chain. You know that data to accomplish this exists, but having it at your fingertips is another matter.

Four paths help you use your data for a more efficient supply chain:

1 Combine disparate data for analysis

Your supply chain data – scheduling, financials, suppliers and inventory to name a few – lives throughout your organization. But you need to combine elements of this information into a single dashboard to manage logistics and find ways to eliminate waste.

An agile business intelligence solution lets you quickly point at the data sources you need and combine them for analysis. By considering related factors across different data sets, you will identify relationships and opportunities impossible to uncover when evaluating silos of data.

2 Interact with your data

Not all dashboards are created equal. Static information or views that leave you with more questions than answers doesn't drive efficiency, it generates frustration.

Develop dashboards that let you interact directly with data so that when your analysis sparks a question, you can drill in to get an answer, a better solution or a new idea. Interactivity also satisfies multiple stakeholders at once by letting them filter for relevant information. Why build a dashboard for each distribution center when you can build one that lets managers choose their own plant and see only the information they have permission to see?

3 Extend your data

Optimizing your supply chain isn't a linear function and neither are the algorithms behind your operations. As you build interactive dashboards, incorporate sophisticated models that inform your decisions.

By using a business intelligence solution that is flexible enough to incorporate user-defined calculations, your ability to find opportunities to optimize your supply chain expands fast.

4 Provide access when & where it's needed

Your stakeholders are in factories, distribution centers and on the road. Provide actionable information when and where they need it so that decisions translate into competitive differentiation.

Use a business intelligence solution that lets you adhere to your rigorous security mandates, including user-level security, while leveraging an "author once" model so that dashboards are the same whether a user is at a desk or on-the-go.

Following these four paths will get you on the path to converting the data you already have into the insight you need to optimize your supply chain.



Product Bundle Planning Insight

*This quantity-on-hand (QOH) dashboard combines inventory information with sales data to create a unified view into product bundles. **Click on this dashboard** to see how a manager could select a product bundle to see forecasted QOH trends and regional sales in one view.*

 [Explore the dashboard](#)

3

three minutes with
National Motor Club's

MATT KRYSIAK



Matt Krzyiak describes his need to quickly identify “hot spots” and other opportunities to improve efficiency for better customer service and to reduce costs. Describing Tableau as a “game changer,” Matt provides examples of improved operations based on better insight into data.

“ There are cases where we have reduced costs by hundreds of thousands of dollars as a result of the information we gained out of Tableau. ”

– Matt Krzyiak, Chief Operating Officer, National Motor Club

 [Watch the video](#)



US Auto Parts

Better data visualization drives better operations

US Auto Parts' business analytics team needed a way to bring key pieces of data together, establish meaningful metrics and share them across the organization. They wanted to provide visibility into details of the business, but lacked an effective, efficient approach.

With Tableau, the team was able to establish standardized, key metrics that were easily shared throughout the organization. They then went one step further and created an analytics environment that "empowers business units to do their own analysis." Category managers, for example, now investigate their business by time or channel, drilling deep into the data in real-time to understand results by subcategories, parts and SKUs.

"With so many parts to manage, the visualizations help us quickly identify important trends," explains Sarah Gustafson, Vice President of Business Analytics. "You typically can't do that easily with streams of data."

“Tableau has saved hours and hours of time pulling and manipulating data. We can focus more time on the activities that really matter – analyzing the data and serving up discoveries and recommendations to move the business forward.”

– Sarah Gustafson, Vice President of Business Analytics, US Auto Parts



[Read the entire case study](#)



Visual reporting and analysis: seeing is knowing

Visualizing data – in the form of charts, maps and other graphs – is no longer restricted to specialized applications. Further, using data visualization as a standard part of analysis is enabling business users to better understand data and use it to their advantage.

Incorporating data visualization into day-to-day analysis is prompting a cultural shift toward more analytic, data-driven environments by empowering users to explore data in a graphically inviting medium – data that was previously available only in tabular reports.

This TDWI Best Practices Report, based on a Web survey of BI professionals and interviews with BI practitioners and experts, finds that data visualization is in the middle of a remarkable growth phase. It also reveals that data visualization contributes impressively to improvements in business user insight and productivity as well as the usage of dashboards, the preferred medium for data visualization.

“Nearly three-quarters (74%) of respondents to our survey rated the influence of data visualization on business insights as “very high” or “high.”

– TDWI Research



[Read the white paper](#)

Eliminating waste at Seattle Children's

When you're an organization committed to saving lives, the more you remove waste from systems and processes the more resources become available to put towards patient care. Seattle Children's—the 7th highest ranked children's hospital in 2011 according to U.S. News & World Report—discovered ways to “virtually increase beds” and treat more patients.

More People Turning Data into Insight, More Quickly

“We are continuously looking for new ways to improve our quality, safety, and processes from the time a patient is admitted to the time they're discharged,” says Drexel DeFord, Senior Vice-President and Chief Information Officer at Seattle Children's. “So we spend a lot of time analyzing data associated with those visits.”

To more quickly turn patient and hospital data into insight, Seattle Children's implemented Tableau Software's business intelligence application. Tableau fundamentally changed what Seattle Children's could do with data by providing browser-based, easy-to-use analytics to stakeholders throughout the organization, making it intuitive for individuals to use visualizations to understand what the data means.

“With Tableau, more of our staff are able to develop visual systems on their own resulting in dashboards and scorecards which really help us define what the standard is, how are we achieving against it, and how are we growing into the future.” explains Ted Corbett, Director of Knowledge Management at Seattle Children's.

Shorter Wait Times Means Higher Through-put

The Surgical Services team at Seattle Children's started using Tableau to see if they could measure patient wait times. What they discovered were steps they could take to reduce wait times and increase the number of patients served at the hospital.

“We were able to set up a fantastic visualization that showed some of the root causes and contributing factors for patient waiting,” explains Jio. “For example, we looked at some of our rooming practices and saw that delays early in the day cascaded to the rest of the day. It became very effective for us to really focus on on-time starts, and we've already seen significant improvement in patient waiting overall.”

“We have to continue to be able to treat as many kids as possible,” explains DeFord. “By making those processes more efficient, for all intents and purposes we created more beds, even though we didn't physically build them.”



“So far we've saved \$3 million out of the supply chain, and using Tableau we can find new ways to eke out more savings.”

– Ted Corbett, Director of Knowledge Management, Seattle Children's

[Watch the video](#)

Real-time answers

Find insight, reduce supply chain waste

When you combine relevant data, robust analysis and amazing visuals, you generate insight that reveals valuable information about your supply chain.

Add on the ability to ask and answer questions about this data – in real-time – and what do you have? The

potential to identify ways to drive inefficiencies out of your organization like never before.

Make your data do everything it can to help you create the most efficient supply chain possible. Whether it's optimizing transport routes, managing inventory or anything in between, the answers are available when you can interact directly with your information.

Best route in bad weather?



 [Explore the dashboard](#)

This dashboard connects a company's network of fulfillment centers and retail locations with regional weather information from a Weather Mapping System (WMS). **Click on this dashboard** so see that the distance from the fulfillment center has been color coded, while size is based upon tonnage. A link to web based directions provided by Google is also included.

Comprehensive supply chain view

Product Name	Amount Sold	% Total QOH	% Change QOH vs Prior Year	% Change YOY
VF 1000 Inshore 4000 Series	\$ 101,138	1.34%	-1.34%	-41.41%
VF 1000 Inshore 4000 Series	\$ 1,595,880	2.74%	2.74%	50.55%
Dallas 1000	\$ 81,228	1.05%	1.05%	-43.83%
Shery 1000	\$ 87,383	1.12%	1.12%	-43.83%
Shery 1000	\$ 102,207	1.32%	1.32%	-43.83%
Shery 1000	\$ 1,288	0.02%	0.02%	1.27%
General 1000	\$ 71,574	0.92%	0.92%	-43.83%
General 1000	\$ 100,000	1.28%	1.28%	-43.83%
General 1000	\$ 42,833	0.55%	0.55%	-43.83%
General 1000	\$ 119,588	1.53%	1.53%	-43.83%
General 1000	\$ 499,783	6.41%	6.41%	-43.83%
General 1000	\$ 145,882	1.87%	1.87%	-43.83%
General 1000	\$ 208,888	2.70%	2.70%	-43.83%
General 1000	\$ 108,881	1.40%	1.40%	-43.83%
General 1000	\$ 108,783	1.40%	1.40%	-43.83%
General 1000	\$ 274,283	3.53%	3.53%	-43.83%
General 1000	\$ 176,888	2.27%	2.27%	-43.83%
General 1000	\$ 111,182	1.43%	1.43%	-43.83%
General 1000	\$ 888,427	11.43%	11.43%	-43.83%
General 1000	\$ 881,181	11.28%	11.28%	-43.83%
General 1000	\$ 31,328	0.40%	0.40%	-43.83%
Grand Total	\$ 8,281,788	100.00%	100.00%	-43.83%

 [Explore the dashboard](#)

This dashboard combines sales metrics, geographic demographics and year-over-year change thresholds in one consolidated view. **Select the dashboard** and investigate the multiple tabs, each of which provided a different view into this business.

5 Best practices for creating effective dashboards

When created well, dashboards answer questions that drive success. They help spot trends, monitor hot opportunities and reveal the cause-and-effect relationship between data.

But many dashboard attempts fall short. They can be hard to configure or take forever to wait on a centralized business intelligence group to deliver. They can be difficult to update, rendering the data meaningless soon after it's built. They can be hard to understand when cluttered with too much – or the wrong – information.

Five best practices stand out that will make your dashboards meaningful:

1. Choose metrics that matter
2. Keep it visual
3. Make it interactive
4. Keep it current or don't bother
5. Make it simple to access and use

Take hold of the potential of dashboards and start making them part of your analysis approach. Dashboards can be easy and fast to create, sharing meaningful metrics that make a difference in your decision making efforts.

“The actual dashboard took maybe sixty seconds to create and a few hours to discuss and drill down into the different diagnoses and patient groupings. So now the data that used to be a barrier is facilitating a conversation, which is exactly what it should be doing.”

– Jason Jio, Administrative Director – Surgical Services, Seattle Children's

 [Read the white paper](#)

Optimize your supply chain with Tableau

Converting your data into an optimized supply chain is within reach. Tableau lets you explore and optimize critical areas of your supply chain such as shipping, inventory planning, transportation efficiency and just-in-time metrics as well as modeling product forecasts and demand. By using an application that analyzes all relevant data in one place and facilitates interaction that answers key questions in real time significantly impacts your ability to eliminate waste and find answers for an optimized supply chain.

Tableau Software helps people see and understand data. Ranked by Gartner in 2011 as the world's fastest growing business intelligence company, Tableau helps anyone quickly and easily analyze, visualize and share information. More than 6,500 customers across most industries get rapid results with Tableau in the office and on-the-go. Tens of thousands of people use Tableau to share data in their blogs and websites. See how Tableau can help optimize your **supply chain**.

 [Download the free trial](#)