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TOP 5

TRENDS FOR 2018

RETAIL ANALYTICS

Five trends that will shape the retail market in 2018

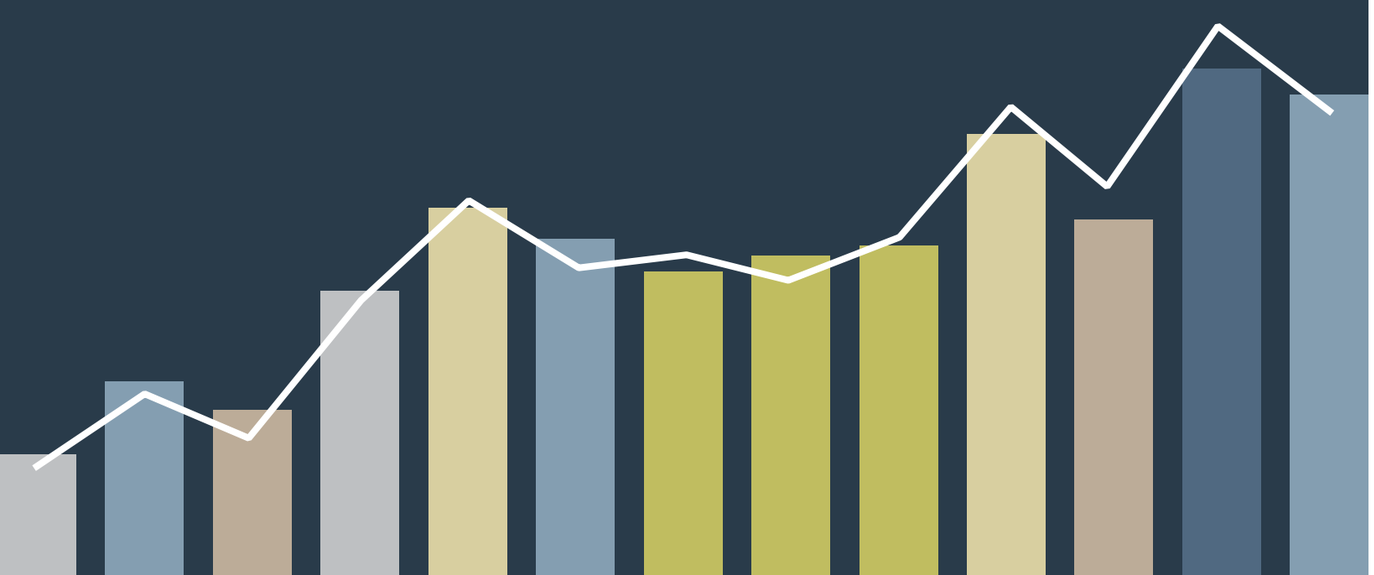
As technology continues to shape the consumer retail experience, organizations are learning more and more about how these new devices and experiences affect customer behavior. Success will all come down to the data—how its collected, interpreted, and acted upon.

From budding startups to global enterprises, this growing commodity is triggering retail organizations to deploy business intelligence (BI) solutions that will elevate and accelerate data-driven decisions. Successful organizations are prioritizing a modern BI approach, and in turn, priming their workforce to be the most analytically savvy generation ever seen. For a competitive edge in 2018, organizations must recognize the strategies, technologies, and business roles that can enhance their approach to business intelligence.

Here are five analytics trends that we'll see in the retail and consumer-goods markets this year.

1 5 Trends In Retail Analytics for 2018

Retailer and supplier relationships are strengthened by visual analytics



Strategic partnerships with suppliers are more important than ever. Retailers are turning to visual analytics to make sense of a growing web of complex orders and inventory levels, sharing these insights with suppliers and manufacturers.

These new shared analyses—based on granular, transaction-detail data—allow for strategy validation and better coordination of fulfillment times to meet a growing complexity of ordering scenarios including in-store, online, and order online with in-store pick up. This is leading to higher on-shelf availability rates and fresher product offerings, which means higher customer satisfaction.

Cloud-based analytics and scalable subscription models are making this collaboration even easier while reducing expenses and implementation time. Japanese home center retailer, GooDay, worked with their top 50 vendors to create inventory dashboards, shared in the cloud through a SaaS business intelligence platform. This allowed the retailer to shift towards a just-in-time inventory model, reducing inventory levels by 50% while increasing sales and in-stock position, freeing up working capital.

> It’s been a challenge to share the figures with branch managers. However, by showing them the visuals, the communication has become much smoother. And now, since we can tell where the problems are, we are able to take appropriate measures.

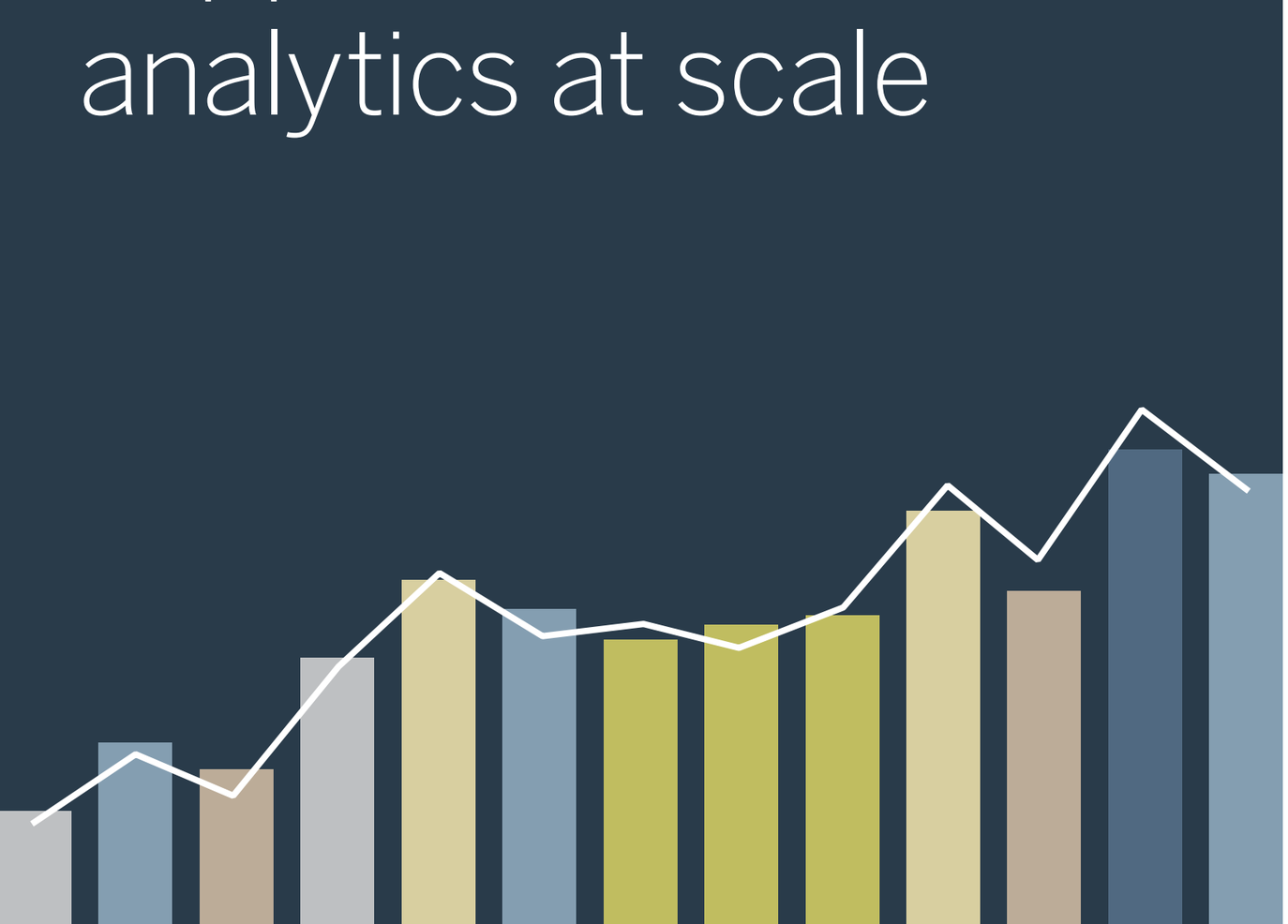
— **TAKASHI YANASE,** EXECUTIVE VICE PRESIDENT, KAHO MUSEN, HOME CENTER GOODAY

1 5 Trends In Retail Analytics for 2018

Retailers and suppliers can now utilize data governance through modern business intelligence platforms, increasing transparency without compromising security—a reality that simply is not possible using shared Excel workbooks, text files, EDI transactions, or static reporting methods. This data sharing is leading to better coordination around key performance indicators (KPIs) like fulfillment times and inventory turns while increasing revenue for both parties.

2 5 Trends In Retail Analytics for 2018

Natural language generation supplements visual analytics at scale



Natural language is already augmenting the consumer experience via voice-controlled digital assistants like Amazon Alexa and the Google Assistant. Now, businesses are embracing this technology for daily decision making and in 2018, we will see natural language narratives merge with visual analysis.

“In the world of analytics, natural language processing (NLP) will empower people to ask more nuanced questions of data and receive relevant answers that lead to better insights and decisions,” said Francois Ajenstat, Chief Product Officer at Tableau Software. “This will broaden the use of analytics across organizations by dramatically simplifying the ways people interact with data.”

Organizations use natural language generation (NLG) to bring context to data by pairing visual analytics with written descriptions. As a user interacts with their real-time data visualization, software instantly generates a narrative description, increasing data accessibility to executives all the way down to front line workers.

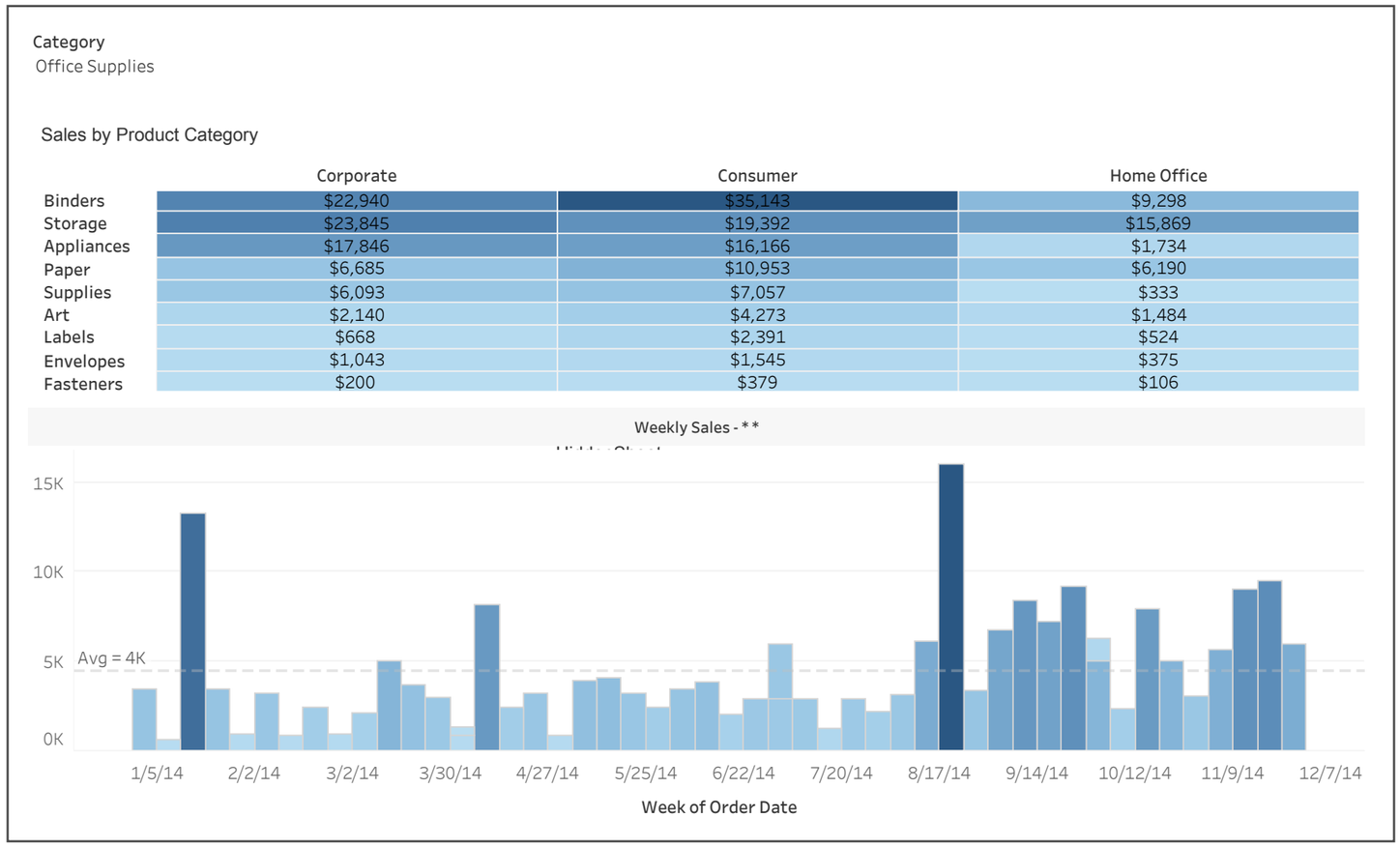
2 5 Trends In Retail Analytics for 2018

YTD Sales by Product

With $214,658, Office Supplies represented 33.4% of the total YTD sales for Superstore. Within this category, sub-categories with the most sales were Binders ($67,382) and Storage ($59,106), while the segment with the best sales was Consumer ($97,300).

The third quarter reported the largest proportion of sales (34%) and had the largest sales week (August 17, 2014; $15,984). Overall, order profitability was low (64%) and profit ratio was average (18%) for Office Supplies orders, leading to a total profit of $37,797. The West Region was the biggest contributor to profit ($20,049) and had the best profit ratio (27%).

Of this year's Office Supplies orders, 72% shipped on time or early. Standard Class Shipping, where 88% of orders shipped on time or early, is one possible explanation for this good shipping year. Another probable cause was the South Region, where 77% of orders shipped on time or early.

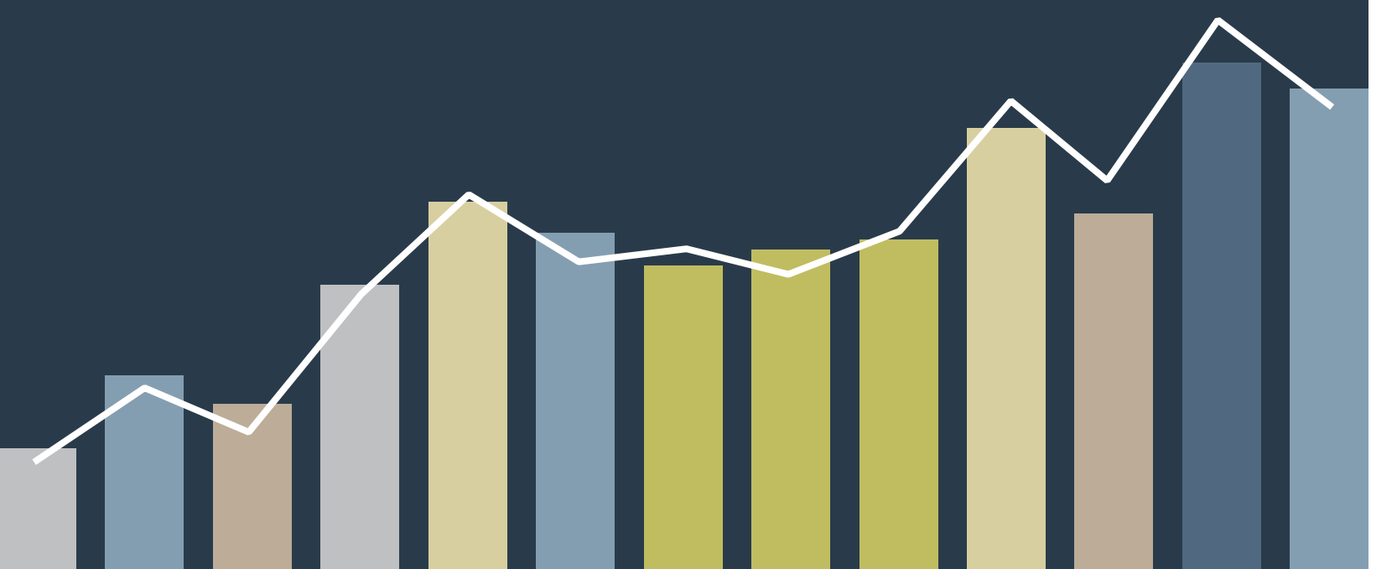


For example, Automated Insights is the creator of Wordsmith, a NLG engine that provides written explanations of data visualizations. In this demo, Wordsmith generates real-time narratives as you interact with the dashboard through a sophisticated application programming interface (API).

Emerging NLP technologies will bring context to data, allowing anyone to ask questions and increasing data accessibility for everyone, from executives all the way down to front-line workers. This will enable faster adoption from a change management perspective, educating employees on visual analyses without formal training and helping users obtain deeper insights.

3 5 Trends In Retail Analytics for 2018

Augmented reality conversion metrics will be the hot new retail KPI



Augmented reality (AR) software is now baked into the two leading mobile operating systems—Apple with ARKit and Google with ARCore—paving the way for widespread adoption. AR will permeate day-to-day activities, and in retail, this will trickle down throughout operations and all through the customer journey.

AR will allow retailers to expand beyond physical products to display information to customers in the form of dynamic content like videos, character renderings, location-based information, and 3D models. Recently, AMC and Mountain Dew partnered to create an augmented-reality mobile app based on the popular television series, The Walking Dead. Consumers can scan Mountain Dew packaging in stores or scan the TV during the opening of the show to unlock additional "walkers," increasing engagement with both brands. This is just one example of the shifting customer experience.

3 5 Trends In Retail Analytics for 2018

In the near future, customers will be able to look through their phone lens down a crowded street or mall and see queue times, how busy a store is, or better yet, see deals pop up for products that are relevant to them. Customers will also use AR in their homes for large items such as furniture and fixtures to see how the product would look in their space before purchase. In-store, customers will scan a product to see customer reviews or even get health information for food products or quick food prep instructions.

This offers a big opportunity for retailers and consumer goods brands to learn new insights about their customer base. Tracking augmented reality conversion metrics as a key performance indicator will reveal the type of AR content that resonates with customers, how long they engage, and what contributes to a successful purchase path. Brands will also measure how AR helps to reduce returns for large, costly items such as furniture, appliances, and fixtures.

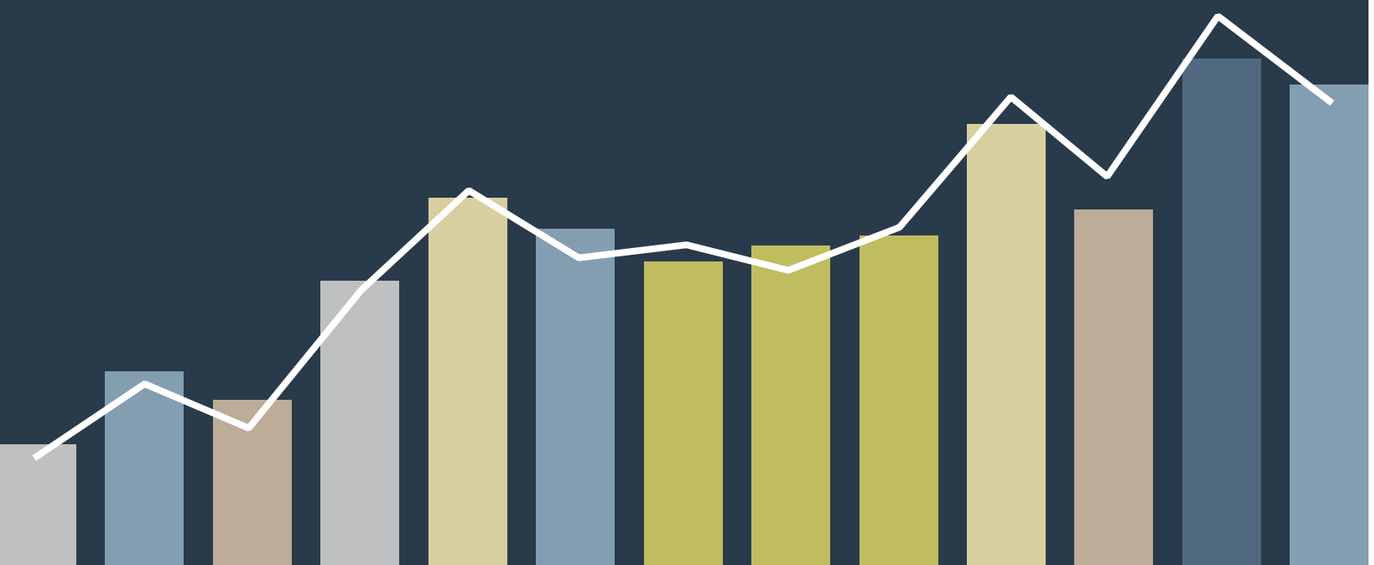
3 5 Trends In Retail Analytics for 2018

Successful retailers will also utilize this technology in the field for internal operations. In brick-and-mortar locations, retailers will integrate AR into the core of store operations, allowing store employees to see and understand product information, real-time inventory, ordering opportunities, product reviews, and customer sentiment—all through the convenience of their mobile phone. This will be possible through solutions like Strata Linc, allowing employees to hold up a phone to a product to filter a data visualization by stock keeping unit (SKU) instead of scanning a bar code. You can see experience this in the Extra chewing gum example within the Strata Linc demo.

On the customer side, the competitive advantage lies in how brands can connect AR engagement metrics with strategic goals. And on the operations side, retailers that adopt AR will see endless possibilities for greater efficiency across a variety of roles, including store management, factory workers, marketers, and more.

4 5 Trends In Retail Analytics for 2018

AI and machine learning will become table stakes for retailers



Machine learning will enable marketers, category managers, and merchandisers to accurately gauge customer buying patterns for strategic planning. Algorithms combine massive amounts of historical and real-time data to improve operations, including predicting the best times for promotional events or personalizing product offerings.

Leading companies are using machine learning to analyse raw point-of-sale data to make SKU decisions on a store-by-store basis. Sony Pictures Home Entertainment, working with retail partners, used machine learning to predict SKUs on the basis of integrated and industry market data. This led to improved store performance that has translated in increased sales while reducing inventory and supply chain costs.

> Our technology partnerships have enabled our organization to combine the insights driven by machine learning and interactive visualization on the foundation of integrated internal and industry market data.
>
> — **JOHN DALY,** SENIOR VICE PRESIDENT, SUPPLY CHAIN, SONY PICTURES HOME ENTERTAINMENT

Machine learning is also changing the way we pay for products. Amazon, for example, is about to open up its Amazon Go store. The company is using a combination of mobile apps, sensors in the store and on the shelf, computer vision technology, and machine learning to give customers a frictionless checkout experience. Customers log into their Amazon Go app, walk into the store, and walk out with a product without actually going through a checkout process or having to wait in line.

This trend is shifting the market standard for the omnichannel customer experience, with personalized website content, product recommendations, price optimization, supply chain optimisation, and laser-focused ad targeting.

5 Trends In Retail Analytics for 2018

Lines between applications and analytics will continue to blur, helping retail workers

In a typical day, knowledge workers jump between enterprise applications for ERP, CRM, supply chain, marketing, human resources, and a separate application for analytics. Instead, the flow should be a seamless, gaining insight from an analysis, and then taking action within the application.

As web-based application become standard, we are seeing a merging of enterprise and analytics applications. Companies are embedding visual analysis within applications and the reverse, applications embedded within the visual analysis.

For example, retailers are embedding visual analytics into product ordering applications, helping teams validate that orders are complete or that they make sense based on past sales history and existing ordering quantities. Fashion retailers are using embedded analytics to validate orders for certain styles, size, and color to avoid incurring additional manufacturing costs for small production run sizes.

Another example involves retailers who share product sales velocity to their vendors along with current inventory quantities. Vendors will conduct visual analysis to interact with the data, and now, they will be able to seamlessly interface with the inventory management web application to update inventory in real-time. As the vendor updates current inventory levels, the visualization will automatically update based on the new real-time data.

This blurring of application and analytics will allow for faster workflows that will ultimately help end users make better business decisions.

Further Reading: Learn more about the Tableau Extensions APIs

About Tableau

Tableau helps people see and understand their retail data no matter how big it is, or how many systems it is stored in. Quickly connect, analyze, and share insights to reveal hidden opportunities that impact each sale, and your entire organization. With a seamless experience across PC, tablet, and smartphone, ask and answer deeper operational questions with expressive, interactive dashboards—no programming skills required. Start your free trial today.

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