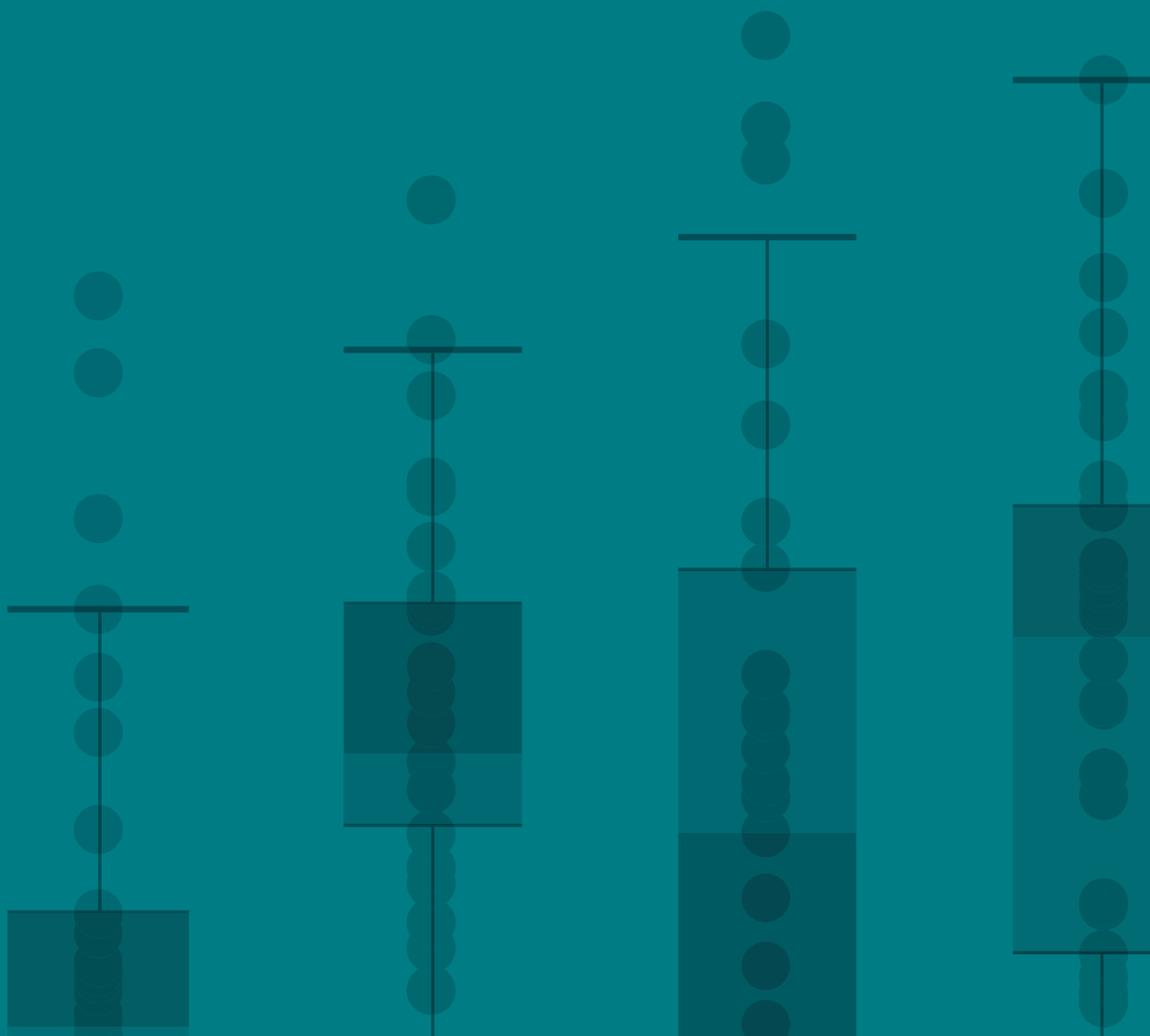# Build Your Competitive Edge:
## 12 Powerful Retail Dashboards

A common ask from our customers is to see more real-world retail and consumer goods examples. Last year, we responded by asking some of our incredible partners from around the world to provide their best retail and consumer good visualizations—which became the basis of our Top 10 Retail Dashboards for Better Performance white paper.

This year, we've reached out once again to our partner community and our partners have responded with amazing, retail-focused visualizations centered around store operations, merchandising, and marketing. These areas have been a big focus for our customers over the last year, and these dashboards have played a critical role in helping our customers build a competitive edge.

We hope these new visualizations inspire you to help raise the bar of analytics within your organization. We also hope it helps to reinforce the amazing capabilities and industry knowledge our partners have. As you go through the content, I would absolutely love to hear your feedback. Feel free to reach out to me on Twitter (@huck5) or email (jhuckaby@tableau.com).

*Analytically yours in retail,*

**Jeff Huckaby**
Global Market Segment Director, Retail and Consumer Goods

# Table of Contents

# 1. Store Level Product Availability

Partner: **Atheon Analytics**
Find it on **Tableau Public**

**What is Store Level Product Availability and how does data visualization help address it?**

Having the right product in the right store at the right time is one of the fundamentals of retailing. Having the best price or the best marketing strategy in the world doesn't matter if the customer cannot buy what they want, where they want, and when they want to buy it.

Availability is important—and costly—for brands and retailers. If a product is out of stock, the customer may substitute with another product, which means the brand will record a lost sale and the customer may permanently switch to the competing product. Customers can be fickle. If a customer's favorite products are not available, they may choose to do their shopping elsewhere, and the retailer loses out on not just the unavailable product, but the entire shopping basket of related goods.

Carry too much product, and brands and retailers will face product spoilage and increase costly waste, or tie up shelf space with under-performing products. Too much product also increases needed working capital, and our friends in the finance department won't appreciate that added investment.

The problem is that retailers generally look at product availability as a percentage. While percentage is a useful measure, it doesn't capture the size and magnitude of the problem—that is, missing distribution points. Resources are wasted fixing low distribution/low sales products with low availability, rather than focusing on what will have the largest economic impact.
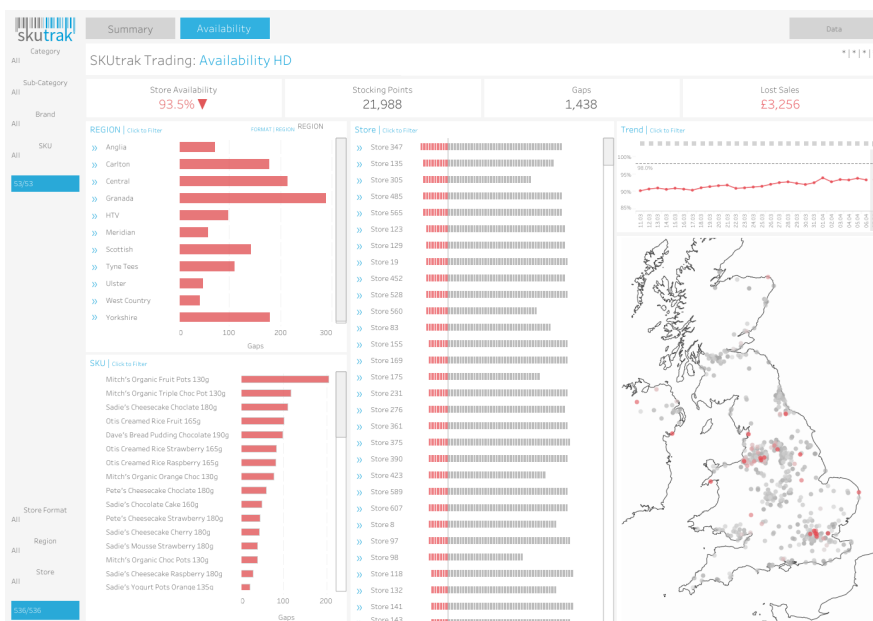
**SKU A**

- · Allocated to 200 stores and is Out of Stock in 40 Stores
- · Availability percentage of 80% (200-40)/200.

**SKU B**

- · Allocated to 1000 stores and is Out of Stock in 100 Stores
- · Availability percentage of 90% (1000-100)/1000.

SKU B is missing in over 2.5x as many stores (over twice as many customers can't purchase the product), but from a percentage measure looks to have better availability than SKU A.

The other problem is not being able to see which stores have the problem (and is there a pattern to the out of stock, such as stores serviced from a specific depot or warehouse).

**Key takeaway: better insight into store level availability helps retail managers and brands**

By analyzing the data visually and adding interactivity, both the retailer and brand (FMCG Supplier) can quickly find the biggest problems by product, geography, format, and store in a few clicks. The worst products, geographies, formats, and stores needing immediate attention are easy to identify.

This visualization can be used every day to find and fix these issues. It's also useful for brand sales management to direct the field sales teams to stores with the biggest problems and maximize the return on investment. When this process is transformed via visual analytics, the customer, the brand, the retailer, and the financial departments all win.
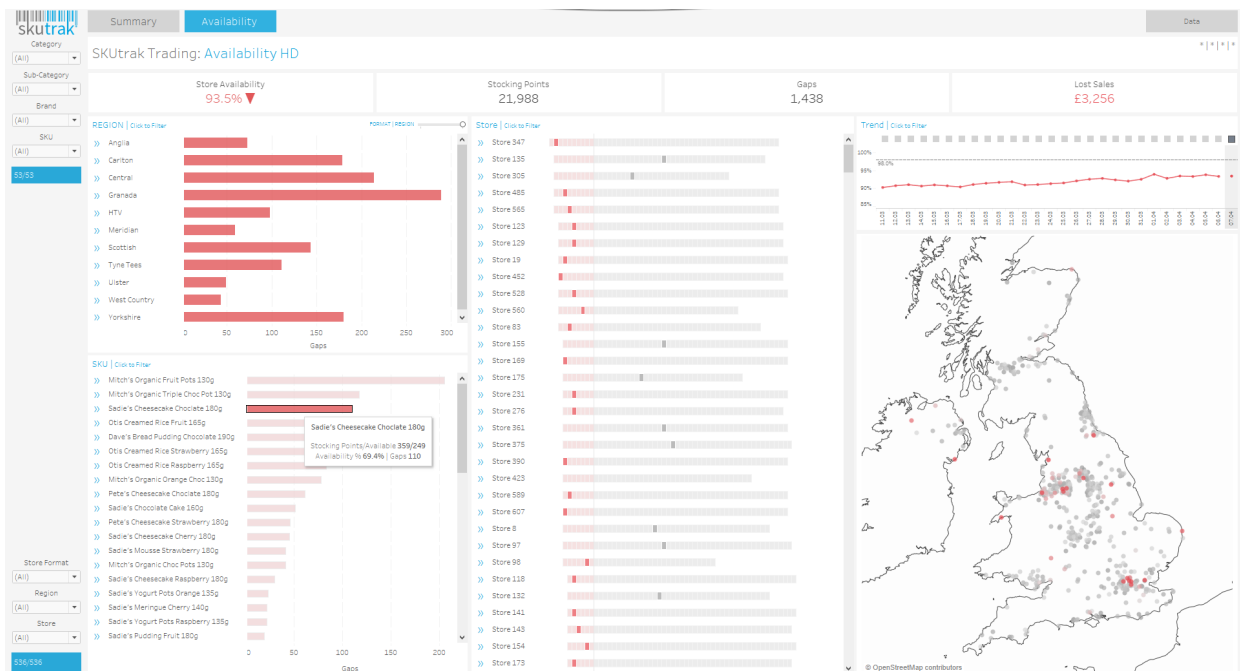


**Try it for yourself**

## 2. Waste Manager

Partner: **Atheon Analytics**
Find it on **Tableau Public**

**What is food waste and how does data visualization help identify it?**

Waste on fresh products refers to products that are either thrown away or reduced in price due to expiring shelf life. Waste costs the retailer real money, and any savings on waste directly impacts profits. There is also corporate responsibility and sustainability pressure to reduce food waste. Properly identifying wasteful products and the cause of waste is a big problem for retailers and quick serve restaurants (QSRs). Due to the difficulty of consuming large text files in spreadsheets, retailers are forced to look at waste in aggregation, and not at store level, preventing retailers or QSRs from taking appropriate action.

Often, products with high waste are only problems in specific stores. Correcting these stores—either by changing product forecasts, facings, removing them from the menu or delisting altogether—can have a huge impact on waste reduction, but can also cause customer churn.

Let's look at High End Streak, a hypothetical example. High End Steak only comes in a pack-size of 12, with shelf life of 7 days, and sells at a retail price of £8.

**100 Stores** (with customer segmentation: high traffic, weekly shop) sell at full retail price 24 units a week, and have a zero theoretical waste:
· Sales value £9,600
· Waste (at retail) £0

**60 Stores** (with customer segmentation: low affluence, low traffic, weekly shop) sell at full price 8 units a week, and another 4 at 40% reduction due to expiring product dates.
· Sales value £4,900
· Waste (at retail) £760

**80 Stores** (with customer segmentation: high affluence, high traffic, convenience food-to-go) sell at full price only 4 units a week, and another 3 at 40% reduction and bin 5 (you can't send in half a pack).
· Sales value £4,700
· Waste (at retail) £4,000 (RTC £800 + Bin £3,200)

The total sales revenue for this organization was £19,200. Waste at retail) £4,760, and waste as a percentage of sales was 25%.

The organization has some choices to make:

· Live with the waste to ensure customers will not be impacted as we hear that many customers love this product

· Remove the product from the product allocation—at the risk of annoying or losing customers (if we could see and make sense of the data at store level, we could remove it from the convenience stores selectively and maybe entice customers to choose ready-made meals, in the lowest traffic low/affluence stores)

· Optimize the impact of waste by reducing the pack size to 6, so most convenience stores could sell through their inventory before the expiration date.

> **Key takeaway: visualizing waste provides powerful, actionable information**
>
> Waste Manager dashboard allows the retailer to quickly identify the products that are selling. Then by deconstructing the waste value into its constituents (clean sales, RTC sales, and binned) the cause of the problem can be seen. It also looks at the main cause of waste—sales velocity in some stores is too low to sell a whole pack at full retail within the product's life. In addition to seeing enterprise level data, the dashboard also shows break down by store cluster. This lets the retailer or QSR quickly identify whether the problem is the same in all stores, or in a particular store type. This is also shown over time, so it can be seen if the waste is a consistent problem, only when promoted, or related to some other event.
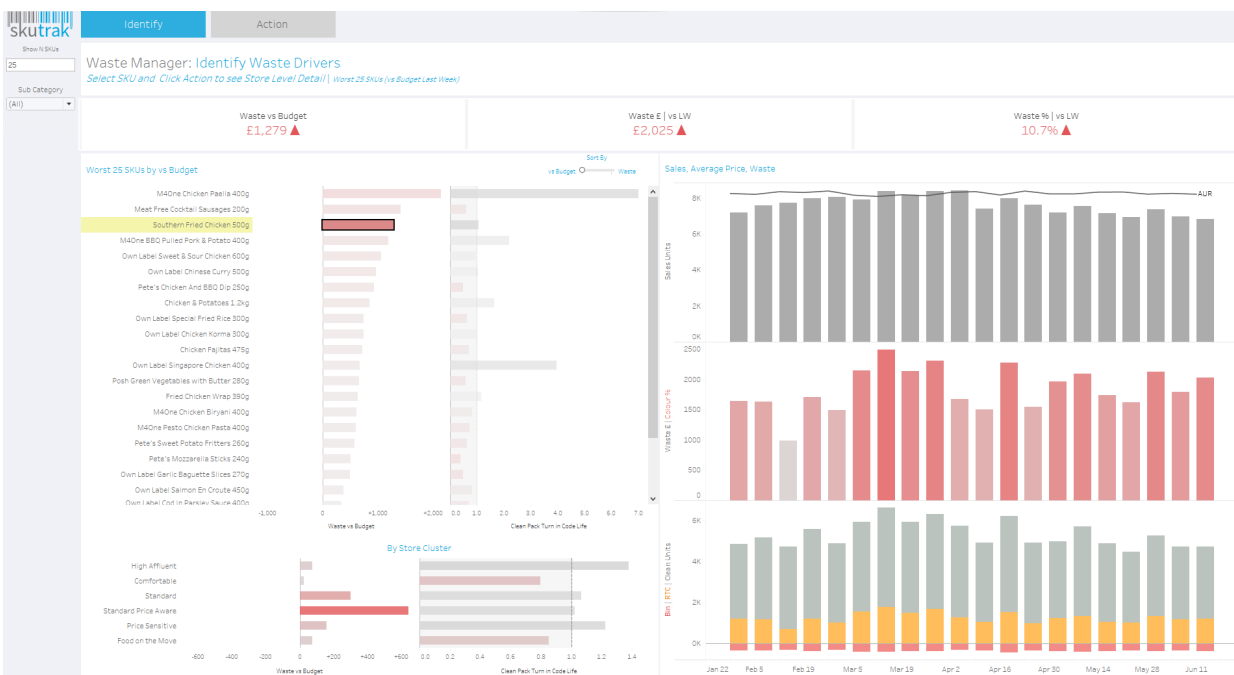
The Waste Manager dashboard then allows the user to interact with the data and see the clusters and stores that are driving waste. As stores are selected, the key information is shown in the table, which can then be exported or shared with the vendor or the merchandising team.
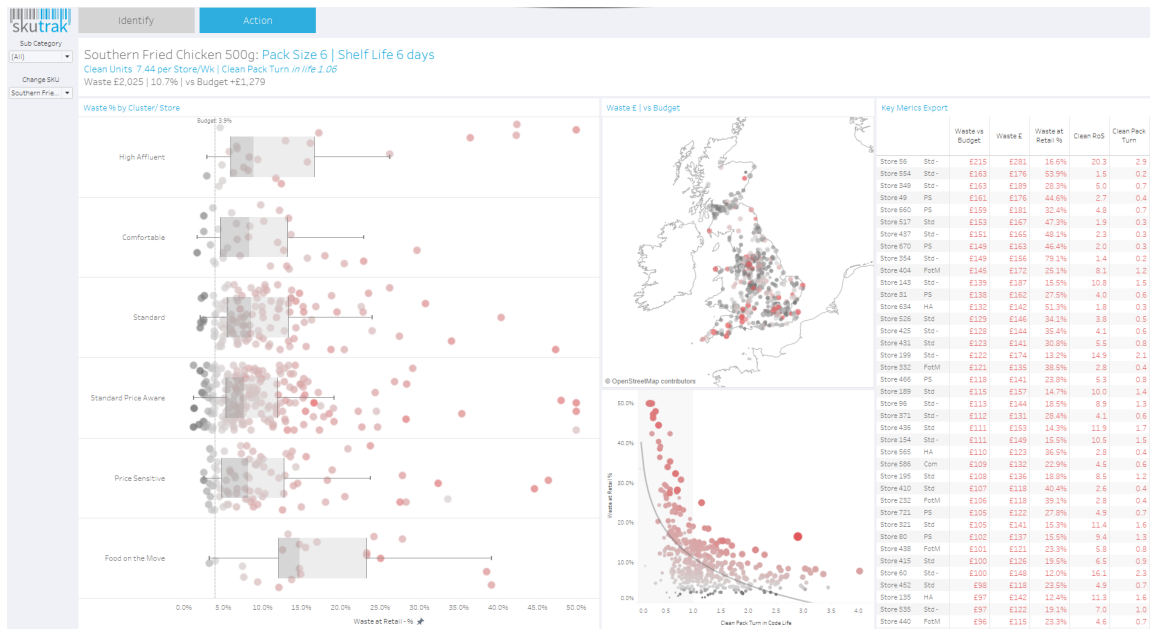


**Try it for yourself**

# 3. Retail Scorecard

Partner: **Interworks**
Find it **here**

### What is a retail scorecard and why is it important?

Retail data is typically siloed information that's difficult to access, analyze, or make actionable. With this retail scorecard key KPI screens are brought together in one place. Now, a general manager or VP can see their entire business across functions without having to navigate anywhere else. High level 'cards' contain snapshots of each KPI. Selecting a card accesses a drill-down dashboard specifically developed for that business function. A set of filters at the card level filters every card and every drill-down dashboard with one click.

Because time matters on the retail floor, JavaScript functions pre-load all the background dashboards to ensure each screen loads in less than one second. This is truly a next generation general manager or VP experience to view the entire business' health with detailed action items. This technique requires minimal expertise in Tableau Desktop and can be designed or maintained by any client team. Cards themselves are simple dashboards of their own.

**Key takeaway: automated data analytics means more time to focus on the bottom line**

This system is simple to build, applicable across all retail scenarios, built with speed-to-insight in mind and represents an achievement that most retailers strive to achieve.
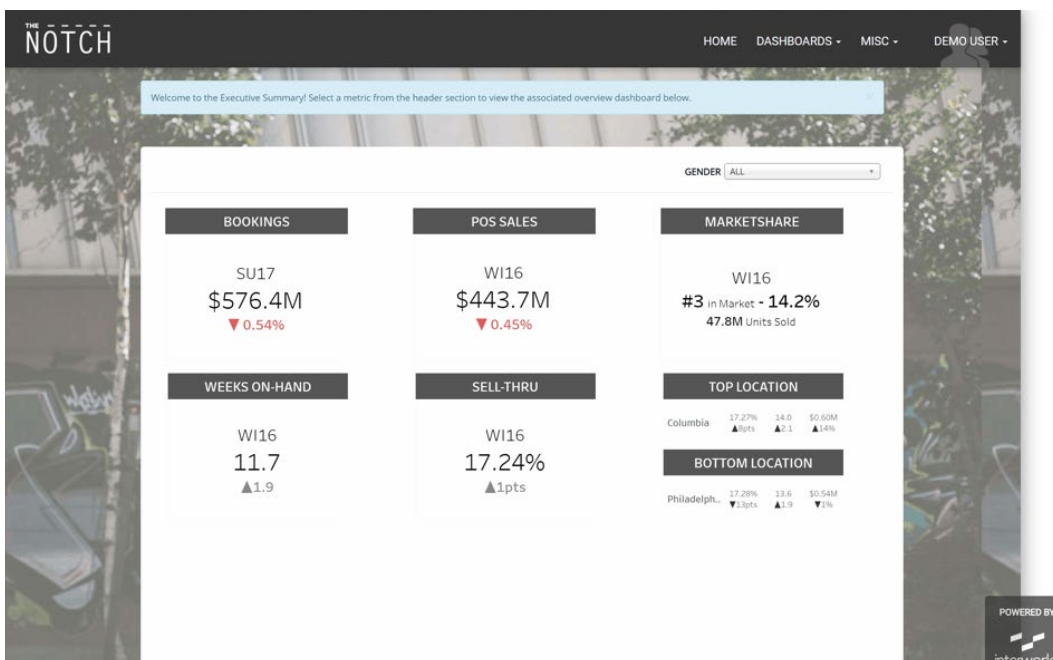


## 4. Retail Executive Overview

Partner: **Keyrus**
Find it on **Tableau Public**

**What does a Retail Executive Overview capture?**

As we talk with our retail customers, many executives share excitement in being able to finally see a holistic view of their retail data. This dashboard shows high-level KPIs that convey the overall health of the organization.

**Key takeaway: a high-level overview provides the KPIs executives need, at a glance**

Executives can quickly see trends, year-over-year performance by product, and geographic sales performance.

Executives are also empowered to ask additional questions of the data. They can use filters and built-in performance forecasting for any combination of product, state, city, or store.
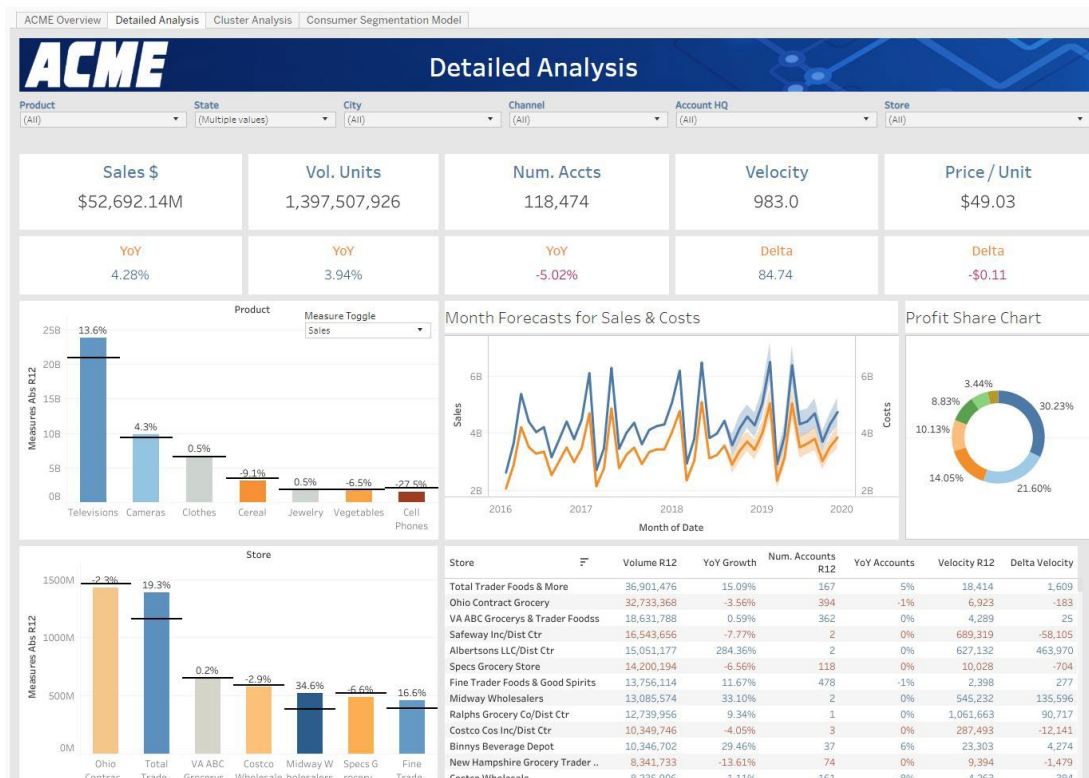


**Try it for yourself**

# 5. Weather Response Predicted Demand

Partner: **North Highland**
Find it on **Tableau Public**

**What is a Weather Response Predicted Demand dashboard and why is it important?**

Not only do retailers have to deal with changing consumers, digitalization, and increased competition, but they also have to deal with extreme weather events.

In response to emergency weather events, North Highland's Predicted Demand dashboard enables mass retailers to predict extreme spikes in product demand, as well as the specific quantities, products, and locations that will be impacted. Insights from the dashboard enable retailers to funnel this new demand into their existing supply chain processes for quick execution in times of need.

Powered by machine learning, North Highland's Tableau dashboard analyzes and distills insights from over 73 billion historical NOAA weather data points, regional demographics and psychographics, retail sales history, and inventory history to equip retailers with a succinct snapshot of anticipated demand during emergency weather events including floods, hurricanes, and tornadoes.

> **Key takeaway: On-demand weather data can be used in tandem with inventory data, to anticipate demand**
>
> The dashboard offers a clear summary of baseline demand, predicted demand, on-hand inventory, orders in route, and the remaining gap in needed orders—enabling the informed allocation of inventory and resources to ensure that supplies are delivered to the right place at the right time.
>
> For large retailers with nationwide store footprints, the dashboard also enables users to drill in by region, product category, or timeframe to zero in on demand at the SKU, store, and day level—allowing decision makers to quickly mobilize on next steps and accelerate emergency response and recovery efforts, helping customers when they need it most.

Post-Hurricane Demand Predictions as Affected Retail Stores
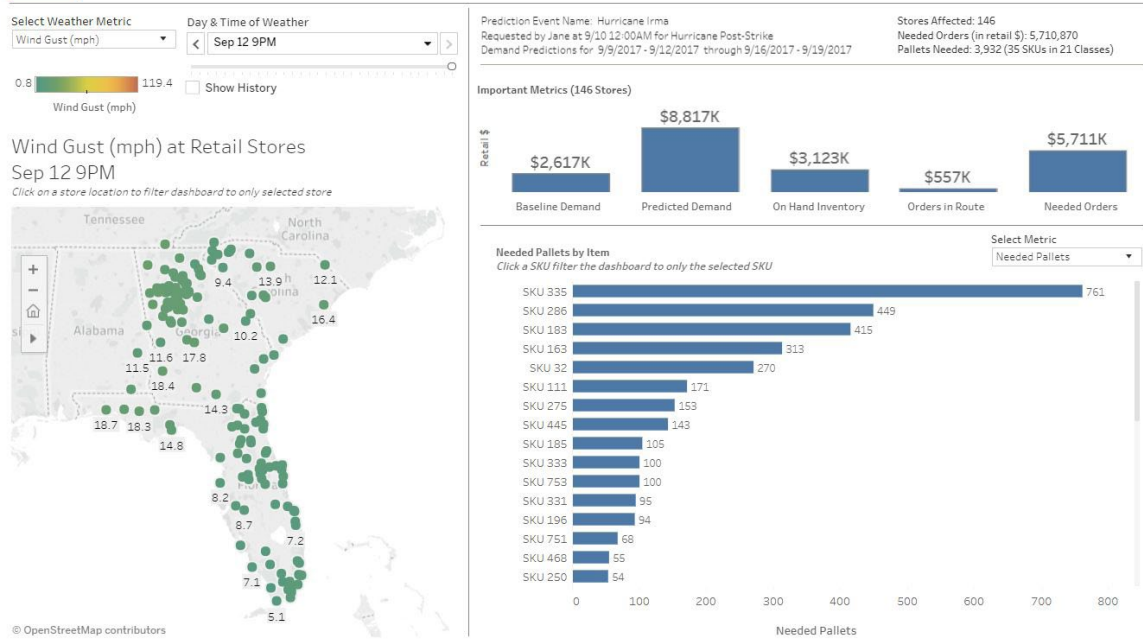
# 6. Retail Store Heat Mapping

Partner: **North Highland**
Find it on **Tableau Public**

**How can retail store heat mapping data improve sales?**

Gone are the numbers only, grid-based sales flash reporting. Modern retailers are using visual analytics to gain greater insight within the physical space of brick and mortar stores.

Store heat-mapping analytics give retailers the ability to understand a wide variety of information about physical store layout and performance without having field teams physically travel to each store or consume valuable time from store staff.

> **Key takeaway: Heat maps allow retailers to optimize store layouts without the manual guesswork of the past**
>
> Leveraging industry-standard mapping technology, the solution reads store CAD maps and overlays analysis such as sales per square foot, product locator services, planogram compliance, seasonal reset location and performance, shelf/fixture profitability, and sales velocity.

SUPERSTORE HEAT MAP

## 7. Regional Manager Dashboard

Partner: **Automated Insights**

Find it **here**

**How does a Regional Manager dashboard help drive better decision-making?**

Analytics have become one of the most powerful tools for retailers to derive operational insights from their point of sale databases. Using Tableau, analysts can build guided visual analytics that are quick and easy to digest and broadly distribute data across massive retail networks. Adding written analytics is a great way to explain the context behind visualizations and ensure the way information is consumed is consistent with the strategy and goals set forth by leadership. Combining visual analytics with a written explanation reduces the training required to interpret the information.

Whether it's sharing inventory analytics with your supply chain or distributing sales KPIs to brick-and-mortar locations, there's a lot to gain from creating a data-driven culture. This dashboard gives retailers the big picture of nationwide sales and merchandising by not only showing what's going on, but also describing the broader context of why it's happening or how it's relevant. The combination of both visual and written analytics ensures dashboard consumers are able to explore data in a meaningful way to identify trends, events, and KPIs efficiently without misinterpretation.

**Key takeaway: by embedding automated written analysis, regional managers can receive role-based insights that provide complete context and drive action.**

Regional managers can see their store performance in context of the greater enterprise and are able to drill into underperforming stores and focus on the exact departments and products that need attention.
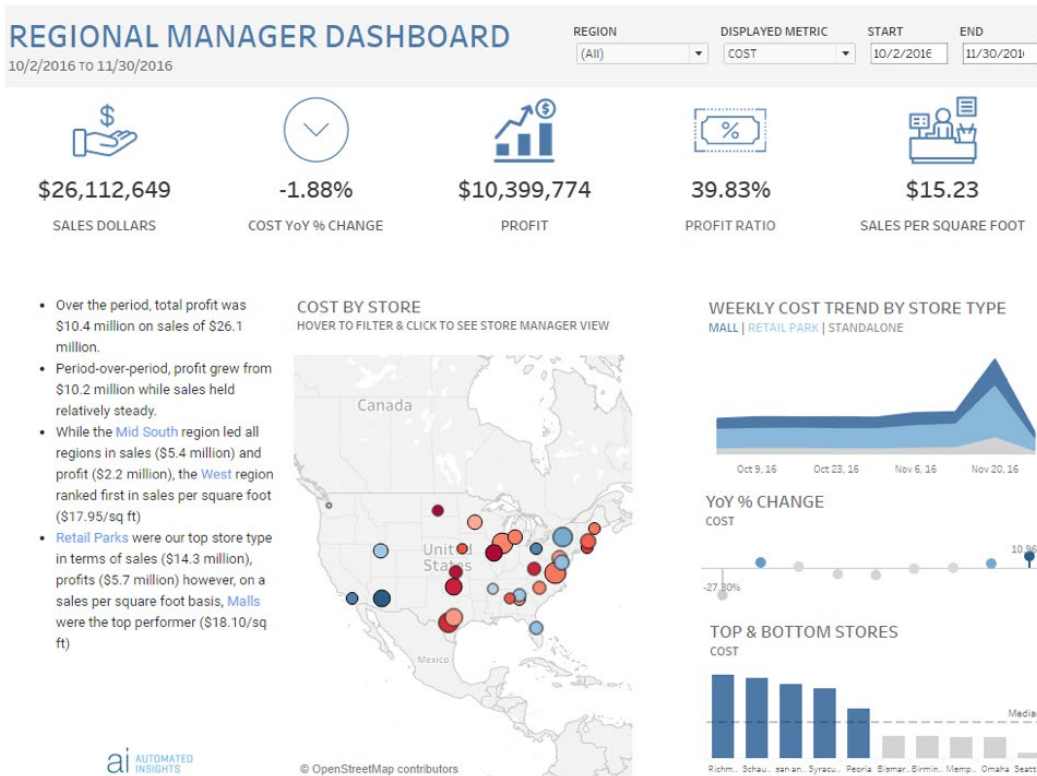


# 8. Store Manager Dashboard

Partner: **Narrative Science**
Find it **here**

**What is a Store Manager Dashboard and why is it important?**

Store managers struggle with legacy BI reports that are tens of thousands of rows of data in Excel or non-interactive PDF reports. With store labor constantly being evaluated and reduced, operational efficiency has to be a focus. Getting from problem to analysis to action in today's fast-paced retail environment has to happen in seconds—not minutes.

Narratives for Tableau instantly provides plain-English explanations of charts and graphs, making it possible for store managers to identify and communicate key insights faster. This natively-built Tableau dashboard extension provides a seamless experience, analyst-quality insights, and the ability to consume a narrative based on a store manager's interaction with the dashboard.

**Key takeaway: store managers need actionable data—and they can obtain it quickly with this dashboard**

In the example below, the Store Manager of fictional store Gravitas Sporting Goods located in Oklahoma City can go to their dashboard to see the primary driver of the decline in sales was due to weak performance in the Athletic Apparel category. Store managers see the visual analysis, read the narrative, and have confidence they have the right information to correct the issue.

From there, they can dig into the product performance within Athletic Apparel and come up with a plan for underperforming products.
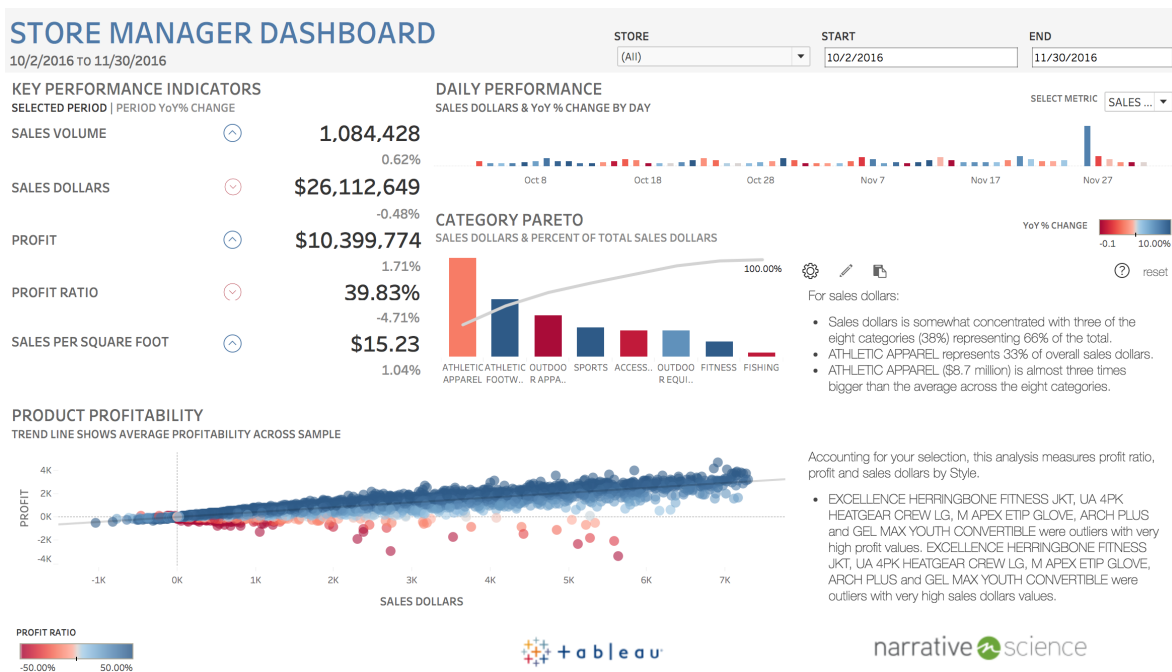
# 1. Marketing Mix Models and ROI Engines
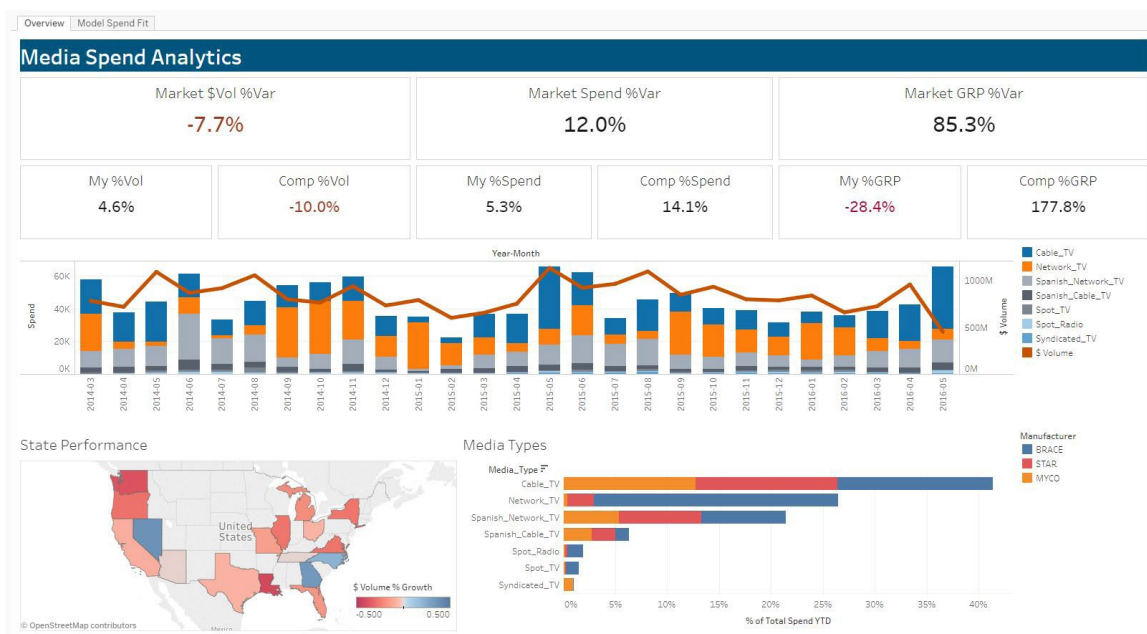
Partner: **Keyrus**

Find it on **Tableau Public**

**What insights do Marketing Mix Models and ROI Engines provide?**

Frequently, marketing performance measurement and sales activity are analyzed separately, because it's hard for many organizations to combine them. But measuring marketing spend and actual sales performance together can help identify marketing campaigns that have direct sales impact. Applying machine learning to the underlying combined datasets helps optimize the marketing mix and achieve maximum ROI.

> **Key takeaway: combing two distinct, and often siloed data sources, can help to identify marketing and sales effectiveness.**
>
> Retailers can use machine learning to maximize marketing mix to drive marketing ROI, ensuring marketing campaigns have a tangible impact on increasing revenues.



**Try it for yourself**

## 2. Marketing Consumer Segmentation

Partner: **Keyrus**

Find it on **Tableau Public**

**What is Marketing Consumer Segmentation and why is it important?**

With razor thin margins, every dollar of retail spending needs to be analyzed, scrutinized, justified, and optimized. Consumer brands need to know who their customer is, what they like, what they want, and where they are. With more pressure on marketing budgets, it is essential to optimize spending and know what consumer segments need to be prioritized.

**Key takeaway: granular insight improves the quality of decision making**

Marketing executives can measure KPIs by designated market area (DMA), sales impact, and dominant cluster type. With hyper focus and no guesswork, marketing can maximize every spend, expand key customer segments, or winning back key consumers whose loyalty may be wavering.
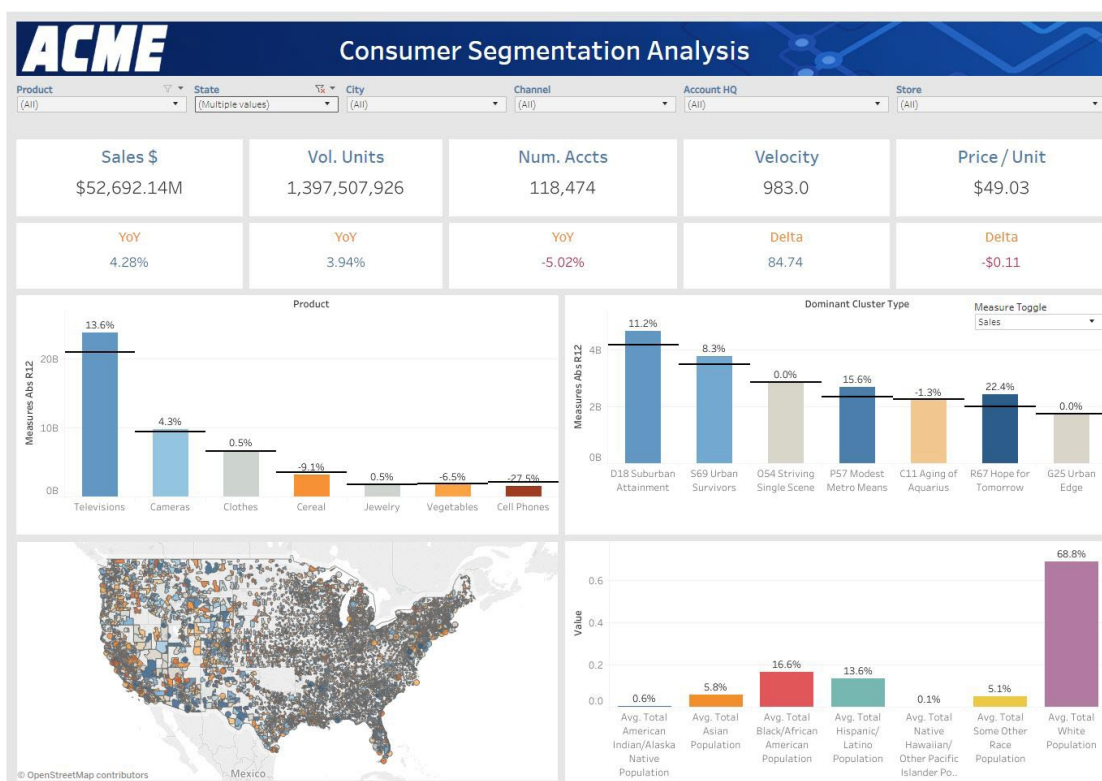


**Try it for yourself**

# 3. Digital Content Optimization

Partner: **North Highland**

Find it on **Tableau Public**

**What is a Digital Content Optimization dashboard?**

Consumers shop online in ever-growing numbers, so in order to keep their attention—and retain their loyalty—content has to be optimized for speed, engagement, and conversion. North Highland's Digital Content Optimization dashboard provides optimized, tactical recommendations that drive e-commerce performance, grounded in insights from the visual analysis of specific digital assets, including individual text, video, and image components.

This Tableau-powered dashboard determines the optimal combination of assets that results in the highest conversion of visitors to buyers, considering each digital asset on a specific product information page across all products in a product category. The dashboard leverages what we know about the assets already: image attributes such as type of image and count of images, text attributes such as number of words, bullets, paragraphs and mentions of specific topics, and video attributes such as length and count. It also supplements this information with what we can learn from cognitive recognition tools—such as objects and actions within images, the presence of people, language, and sentiment within videos—to fully understand what the customer is responding to. Once it's understood how these factors relate to sales, the solution recommends the optimal mix of digital assets to maximize conversion.

> **Key takeaway: understanding—and responding to—your online customers' habits and preferences is essential to driving revenue**
>
> The opportunity for digital optimization is large for retailers. One mass retailer realized 100x ROI from increased purchase conversion in the first year following use of North Highland's solution and dashboard. Another company realized over $27M revenue opportunity for one of its brands, leading to actionable improvement recommendations that will be applied to other brands.
>
> Ultimately, North Highland's dashboard solution helps leaders right-size their asset capabilities and marketing spend to help inform and define future state action plans against recommendations that align to content and brand standards.
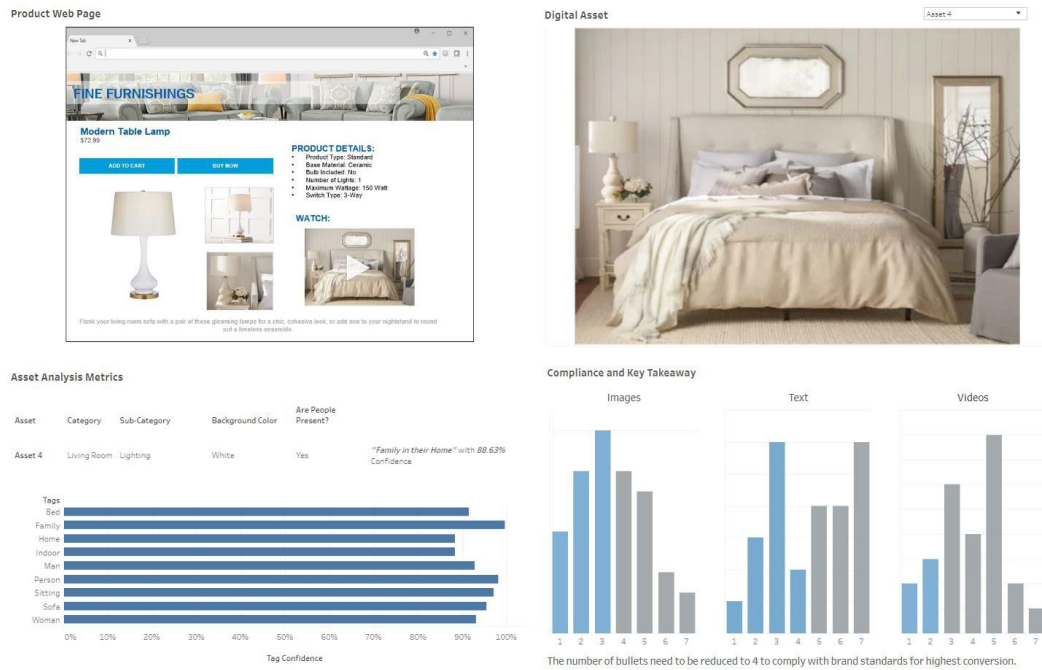
**Try it for yourself**

# 4. Voice of the Customer

Partner: **VoiceBase**

Find it on **Tableau Public**

**What is Voice of the Customer and why is it important?**

In today's digital marketplace, retailers must gain a better understanding of customers' needs, wants, and concerns by continually gathering, analyzing, and acting on customer feedback. And listening to the customer is more important than ever: according to a Walker study, by the year 2020 customer experience will overtake price and product as the key brand differentiator. Voice of the Customer (VoC) dashboards help retailers deliver enhanced customer experiences, engage employees and drive business change. The customer voice can be loudly heard in emails, support chats, voice calls and sales interactions, chatbots and messaging applications, tweets, social platforms, video, and surveys.

One primary channel for Voice of the Customer analysis is speech analytics, which transcribes and analyzes millions of customer calls to discover actionable insights, close more sales, and improve business performance. Speech analytics has historically been limited to the call center.

VoiceBase's open data architecture allows departments outside of the call center to harness rich insights available through voice calls and create true 'Voice of the Customer' dashboards with Tableau.

**Key takeaway: VoC can help you understand your customer and how they view your products, services, and brand**

The dashboard below shows the VoC Competitor analysis using VoiceBase transcribed calls to improve competitive positioning and enhance customer experience. You'll see KPIs of how customers describe competitive brands, including emotions, call volume trends and organic words used with sales and service representatives. This allows you to be able to quickly see how these trends affect the call outcome.
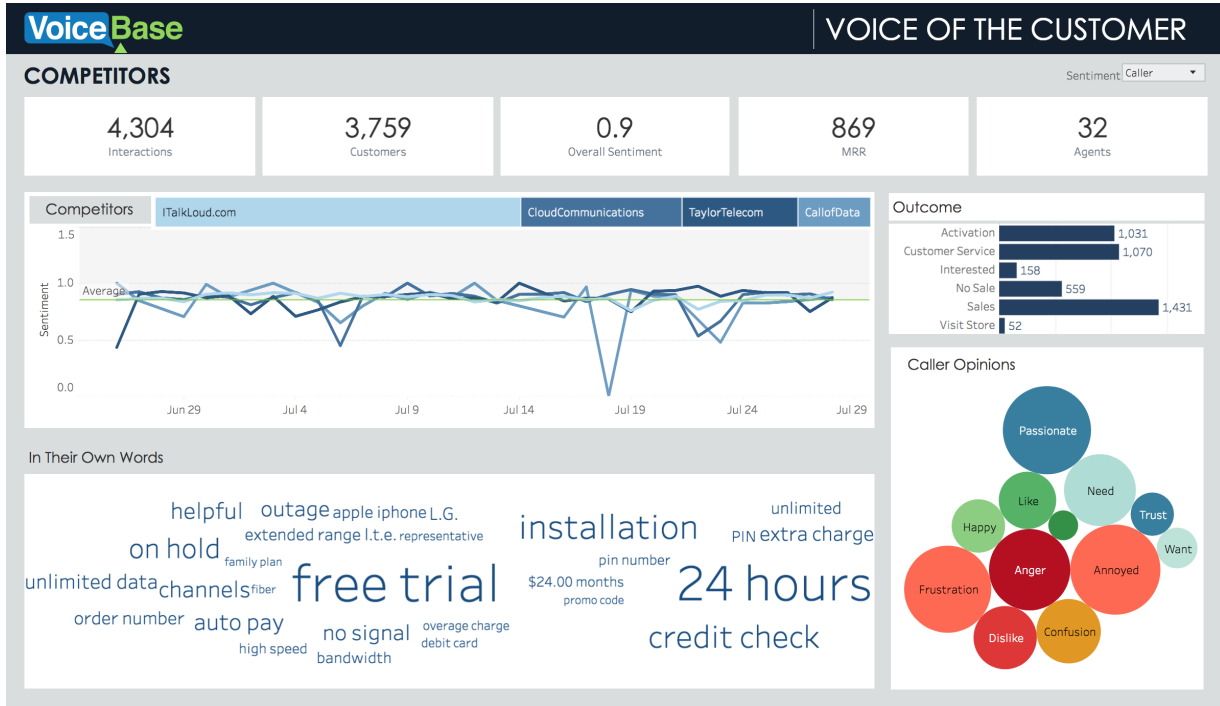


**Try it for yourself**

## Summary

Today's retailers need an edge in order to thrive—not merely survive—in a turbulent landscape where consumer behavior is constantly changing, and customer-centric experiences are essential. To make more informed decisions, savvy retailers are increasingly embracing a data-driven approach.

Using data-driven dashboards, it's possible for retailers to see and understand their data in new ways, and build strategic and competitive advantage with granular, actionable insights. As you've seen in the dashboard examples in this paper, the width and breadth of what retailers can do with visual analytics is impressive: from assessing store level availability to optimizing store layouts, it's clear that having the right data at the right time is key to maximizing profitability and scaling for the future.

## Connect with our Partners

Many thanks to our generous partners for sharing these dashboards with us. Please reach out to them to learn more about how you can implement Tableau dashboards like these and harness the power of your data.

| Partner | Contact | Email | Phone |
|---|---|---|---|
| Atheon Analytics | Simon Runc | simon.runc@atheon.co.uk | +44-08444-145-501 |
| Automated Insights | Peter Benson | peter@automatedinsights.com | 919-824-7671 |
| Interworks | Derrick Austin | derrick.austin@interworks.com | 405-533-1039 |
| Keyrus | Razvan Nistor | Razvan.nistor@keyrus.us | 646-664-4872 |
| Narrative Science | Shawn Parks | sparks@narrativescience.com | 312-477-0590 |
| North Highland | Dan Kopp | dan.kopp@northhighland.com | 770-314-9418 |
| VoiceBase | Emily Blazensky | emily@voicebase.com | 408 702-7160 |

## Resources

7 Tips and Tricks from Dashboard Experts

Tableau Retail and Wholesale Analytics solutions page

Top 10 Retail Dashboards for Better Performance

## About Tableau

Over 80% of the top 100 retailers and over 7,000 retail and consumer goods companies around the world trust Tableau to help them understand their data and create actionable insights. On the Tableau platform, it's easy to explore your data, build dashboards, and perform ad hoc analyses in just a few clicks.

**Download a free trial** and experience the power of Tableau for yourself.