The $1T Revenue Opportunity On Retail Shelves

Efficiently managing inventory on store shelves is an age-old problem. Nearly 1 in 10 shelf items are out of stock or misplaced, creating $1T revenue loss each year from customers not finding what they need. To try and solve the problem, brands and retailers are spending billions to avoid the negative customer experience that costs them not only in short-term revenue loss, but also in long-term customer loyalty.

The problem boils down to a lack of visibility – neither consumer brands nor retailers have an automated way to continuously monitor store shelves to reduce stockouts and ensure their planogram is being executed correctly. Traditional manual checks are expensive, spotty and incomplete. Newer technology solutions, such as ground robots, fixed cameras and smart shelving, are slow to rollout, expensive to deploy and often still not accurate.

Pensa's Automated Data Service

Pensa delivers a breakthrough new solution to the age-old problem. With the industry's most powerful data and analytics platform, Pensa's syndicated data service delivers brands highly accurate, real-time visibility of the store shelf at a fraction of the cost. Brands and retailers, working jointly, can easily pinpoint variability, giving the insights needed to reduce stockouts and improve share of shelf to increase profitability and boost "customer experience.

The Pensa system is a fully automated end-to-end system that continuously collects, analyzes, and reports what's happening on the shelf. Using mobile phones and drones to collect data, and a (patent-pending) cloud-based automated perception system that utilizes AI and computer vision to analyze data, it delivers extremely accurate, real-time data and analytics.

> "We're very enthusiastic about Pensa's new innovative approach to retail inventory visibility and look forward to testing in further commercial environments"
>
> **Andrew Green, Global Director of Innovation Anheuser-Busch InBev**

Through the web portal, brands get actionable reports that show the entire category, by brand, SKU, day and store to help you to tell a more detailed and accurate story for what is happening on store shelves. Uncover issues with planogram variability, faceovers, stockouts, SKU substitutions and more that can impact On-shelf Availability and Share-of-shelf. With easy to read reports, quickly identify operational issues, upside opportunities, store and regional variability, and deep dive into root causes to understand how to quickly improve results in a way that traditional manual audits are unable to show.
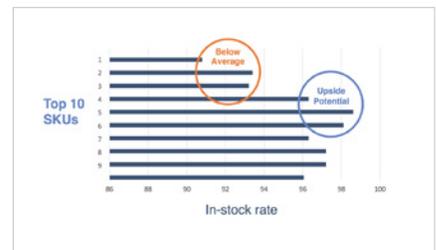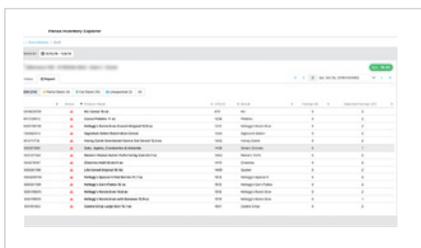
LIVE DASHBOARD
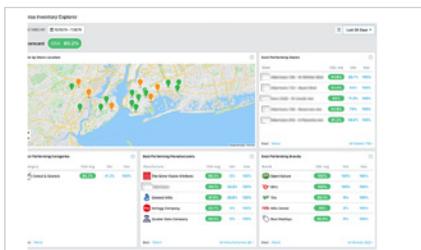
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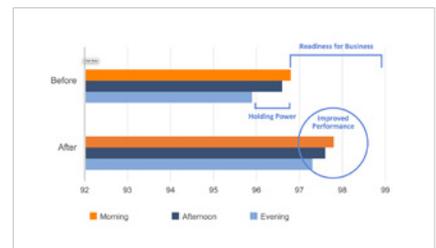

UNDERPERFORMANCE

LIVE STOCKOUTS

MARKETSHARE LOSS

ROOT CAUSE

SHELF DATA CAPTURE
Drones and phones capture data with continuous in-store monitoring

MOBILE PHONE

AUTONOMOUS DRONE
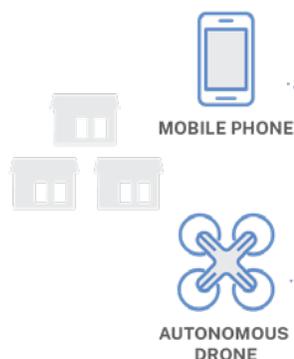
Patent Pending
AUTOMATED PERCEPTION
Cloud-based system powers Pensa's data-as-a-service

COMPUTER VISION

ARTIFICIAL INTELLIGENCE
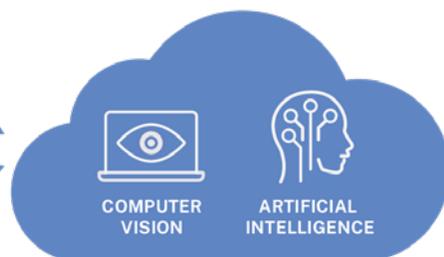
DATA & ANALYTICS
Data is turned into actionable insights and reports

PENSA INVENTORY EXPLORER

DASHBOARD

CSV
EXPORT

The Pensa Difference

The Pensa data service delivers shelf data faster, more frequently, with greater accuracy and at a lower cost per location than any other approach, whether manual or automated.

- **Continuous granular level reporting**: No more sporadic reporting that only gives you insights for snapshots of time. With Pensa, you get continuous real-time data of On-Shelf-Availability and dynamic Share-of-Shelf, by day, by SKU, and by store so you can identify stockouts, spot trends, and manage variability to improve customer experience and increase revenues.

- **Actionable reports:** Stop wasting time slicing and dicing raw data. With Pensa, you get business impact reports that help you quickly pinpoint problems, track and isolate issues, and do deep dives to uncover root causes for reducing stockouts and optimizing shelf management.

- **Built-in competitive benchmarking:** See how you are doing in the market with reports that show data for the whole category shelf. See how you are performing against your competitors, identify SOS shifts and variability, and uncover opportunities to grow market share.

- **Higher accuracy:** It's critical to have data you can trust. Get up to 30 percent higher accuracy in stockout detection than with traditional methods with patent-pending Automated Perception technology that develops a complete digital understanding of the shelf and can detect even hidden causes of stockouts. It visually recognizes products the way people do – learning as it goes – "see-ing" individual SKUs on shelf and how the shelf is organized so you have the most complete and accurate data available.

- **Lower cost:** Why pay more for less? With Pensa, you get the continuous shelf data you need, at a lower cost than the traditional, sporadic after-the-fact reporting others provide. Get the detailed insights you need to efficiently manage your shelf, at a fraction of the price.

Proven With Global Brands and Retailers

Pensa has implemented its service with major CPG brands including Anheuser-Busch InBev, General Mills, Unilever and others. The system has been used in major retailers — in multiple countries, on multiple product categories and SKU formats, in a variety of shelf conditions (dry shelf, open and closed-air coolers) and store formats

Brands and retailers throughout all implementations have identified significant positive improvement opportunities as a result of the insights from Pensa including reducing stockouts, improving merchandising, improving operations, and tightening inventory system accuracy needed for Buy-Online-and-Pick up-In-Store.

> "I've never seen anything that comes close to Pensa's shelf inventory approach – it's a game changer for brands and retailers alike."
>
> **David Ritter, former Partner and Leader of Retail-Store Operations Practice at McKinsey & Company**

About Pensa Systems

Pensa has revolutionized the way brands and retailers manage retail shelf inventory. Our syndicated data-as-a-service (DaaS) solution helps reduce stockouts and boost revenues by delivering highly accurate, real-time visibility of the store shelf at a fraction of the "cost of other solutions. By creating the industry's most powerful data collection and analytics platform, Pensa eliminates tedious manual process by using phones and drones to collect data and AI and computer vision to analyze the data with high accuracy. Pensa partners with top CPG brands and retailers globally to address a trillion-dollar "blind spot" at a critical time in the industry.

For more information

Visit **www.pensasystems.com** or email **info@pensasystems.com**