

Case Study: Procter & Gamble Out of Stock Analysis



"The most sustainable model to prevent out of stock conditions in store"

Corporate Sales Capability Leader

At a Glance

Challenges

- Predictive rather than reactive
- Processing massive data sets
- Accuracy of alerts across total product line

Deployment Scope

- 5,000+ SKUs
- Thousands of retail stores
- Over 50,000 alerts per week
- Over 3,000 users across the US

ROI

- Annual impact of millions of \$
- Predictive alerts greatly reduce OOS
- Increased accuracy from ~20% to 70%

Overview

Since signing a strategic partnership between P&G and Verix in 2012, the two companies have been working closely together to strengthen and build P&G's capabilities and industry leadership in business analytics.

In recent years, P&G has been experiencing exponential growth of their business data, which required a new approach to consuming information. Verix enables the analysis of these huge data sets and the ability to see the forest for the trees by gleaning valuable insights that matter to the business. These insights, Intelligent Business Alerts (IBA), enable P&G's novel way of managing business operations – Management by Exception. Before Verix, P&G found this ability to extract meaningful insights rather challenging with the traditional BI tools they have been using. In a recent interview, Guy Peri, IT Executive at Procter & Gamble noted: "Verix allows us to laser focus on the key exceptions that matter and that allows us to understand what's driving those exceptions so we can take action".

The Verix analytics solution is comprised of analytical applications that focus on specific business processes and provide in-depth insights to optimally manage those processes. As a first step of the two companies' partnership, Verix kicked off three key analytical applications. The first to complete and bring significant business value was the Out Of Stock application, deployed in thousands of retail stores carrying P&G products. The application's predictive alerts generated immediate, significant ROI, through better utilization of P&G's store coverage resources.

At a Glance

Data Sources

- Shipments
- Inventory
- Promotions
- Point of sale
- 400M - 2B rows of POS data

P&G users of the Solution

- Sales managers
- Merchandizers
- Replenishers
- HQ analysts

The Need: Cut long hours of data processing

P&G has worked with a host of different BI solutions that compile business data and provide a variety of dashboards and reports. However, for complex, highly dynamic business challenges they looked for more than reports. They needed focused, actionable insights that will cut long hours of data processing and truly help in daily operations.

Out of Stock is one of those complex, dynamic challenges. Out of Stock is a significant business problem for top retailers, looking at Distribution Voids, Low Stock Supply, and Phantom Inventory. P&G was seeking an analytical application that will focus on these specific challenges, and enable users in the field as well as back in the office, to make rapid yet educated decisions and avoid costly out of stock situations.

P&G used to analyze Out Of Stock with numerous mathematical models and various 3rd party solutions for over 10 years, but all solutions still required a fair amount of manual analysis and choices by the teams, resulting in low usage and slow response time.

P&G was looking for predictive capabilities that would be able to process the huge amount of data that large retailers are accumulating daily, automatically analyze it, and get highly accurate insights that the retailer can trust, and act upon.

The Challenge: Prevention VS reactive actions in stores

P&G today receives petabytes of daily data, which is growing exponentially. They needed a solution that will help them make sense of all this data in an efficient manner.

A lot of factors may play a role in creating unexpected Out Of Stock situations – competitive pressures, social opinion, marketing campaigns, and in-store promotion, to name a few. Managers want to take them all into account, but found it increasingly arduous and quite overwhelming to daily scan through all potential correlations between the different inputs and arrive at business decisions fast enough to avoid costly out of stock situations. P&G was looking for a change in their business process that will allow them to quickly identify and focus on the handful of issues that truly matter to the business and require management's attention. These issues would be the exceptions from the norm. Exceptions that point to an upcoming out-of-stock situation before it becomes an actual problem, and facilitate its prevention. Further, these exceptions have to be put in context to actually understand what drove the situation and how to deal with its root cause rather than react to the symptoms.

P&G's challenge was to implement a solution, which will be able to digest their huge amounts of data and generate accurate and reliable business alerts that will enable educated, timely business decisions that prevent rather than react to problems in the retail stores

At a Glance

About P&G

P&G serves approximately 4.6 billion people around the world with one of the strongest portfolios of trusted, quality, leadership household brands. The P&G community includes operations in 75 countries worldwide.

With pressure from both the retail stores on one hand and the headquarter teams on the other, P&G was looking for a solution that would add value fast and quickly show ROI. Verix's library of pre-packaged analytical applications, required very little vertical start-up time. In 4-6 weeks from deployment, the teams could start seeing value.

The Verix Solution: Intelligent Business Alerts

Verix's Intelligent Business Alerts (IBA) is the ultimate implementation of Management By Exception. Under the umbrella of IBA, Verix offers a suite of analytical applications, developed for specific business processes. The Out Of Stock application was the first for P&G to deploy. It enables P&G to process all of their products offered in a certain store, and any Out Of Stock conditions. The application analyzes all this information and focuses the store execution resources on the greatest value alerts. Before Verix, they could not look at all products and all Out of Stock conditions, but had to limit their attention to some arbitrary subset, as analysis was not automated and analyst capacity has always been constrained.

What makes the Verix solution unique is the ability to take ALL influences into account and automatically analyze them to arrive at a laser focused actionable insight.

Verix helped define the needs and worked diligently to create the most optimal solution for P&G. Guy Peri noted: "as a company we found Verix to be incredibly responsive to delivering values to our end users and so we were very very pleased at their willingness to truly engage and deeply understand our user needs and configure their solutions to meet those needs."

Today, high-value and extremely accurate exception alerts are being sent daily for a range of on-shelf product availability issues. P&G's Field Sales Reps take action on these in store and the headquarter teams drive root cause and preventative actions.

Results: 3X more accurate alerts and significant ROI

Automated data analysis and predictive alerts made a big difference in the way P&G handles merchandize at retail chains. Specifically, better utilization of store coverage resources by focusing on prevention rather than reaction to out of stock situations.

The headquarters team that used to manually analyze POS data, see a significant change with today's single screen that allows business users to quickly identify & understand exceptional competitive and market events, ranked by importance, and supported with contextual insights for fast decisions & actions.

About Verix

Headquartered in San Jose, CA, Verix offers innovative SaaS Business Analytics solutions specifically designed to help companies increase sales enhance ROI and optimize their business development efforts.

Verix's pre-packaged applications combine external and internal data sources with its proprietary HotSpots technology to provide users with a holistic understanding of their market and business operations, as well as detect threats and opportunities as they begin to emerge. Verix goes beyond traditional Business Intelligence, leveraging data to identify and answer business questions.

Headquarters used to send alerts to the field before Verix, but due to their low accuracy, the old alerts weren't taken seriously and utilization was very low. Now, with more than threefold increase in alerts accuracy, and the addition of predictive capabilities, these alerts have become the most vital tool for field sales reps in prevention of out of stock situations.

In 2013 Verix and P&G completed deployment across thousands of retail stores enjoying a significant annual ROI. Moreover, multiple local solutions have been replaced with one standard, fully automated solution, yielding a single action plan database.

Forward Looking for P&G: Adding dozens of retail chains

In 2014, the Verix Out of Stock application will be further deployed across leading retail chains worldwide. For each chain the application will be tweaked to maximize predictive accuracy and ensure optimal results.

P&G strives to deploy the Management By Exception method across their commercial operations, by automating the analysis of more processes and enabling self-serve analytical capabilities to all business users.

To that extent, Verix is working with P&G to define additional analytical applications that will automate more and more business processes.



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