



## ASSORTMENT OPTIMIZATION FOR OMNI RETAIL

### *Changing the way you think...*

4R's breakthrough solution for Assortment Optimization will change the way you think about how you manage your product offerings.

Combining cutting-edge computing techniques, an agile continuous improvement methodology, and flexible customization to accommodate unique business requirements, it delivers superior results every week in every category.



## KEY BENEFITS OF 4R'S ASSORTMENT OPTIMIZATION

- 1. BEST-IN-CLASS DEMAND MODELING:** we use machine learning techniques to uncover correlations between product attributes and sales, identify substitution patterns, model the impact of promotions and seasonality, and predict demand for each item at every location, even where a product has never been sold.
- 2. LOCALIZED ASSORTMENTS DRIVEN BY ADVANCED ANALYTICS:** 4R Assortment Optimization determines the product mix that produces the best sales result for each location, then uses advanced analytics to create clusters of stores that balance your operational capabilities against maximum profitability. It gives you visibility to the profit improvement achieved by increasing the number of clusters, enabling you to make informed decisions about how many unique assortments to offer.
- 3. BUILT ON A CONTINUOUS IMPROVEMENT METHODOLOGY:** 4R's solution shifts the assortment management paradigm from a traditional waterfall project orientation to an agile continuous improvement process that ensures your assortment is always performing at its best. It comes complete with workflow for modeling and rollout management, performance monitoring and measurement features, and exception alerts that help you stay on track.
- 4. FLEXIBLE CUSTOMIZATION:** our solution leverages your input to make sure the results accommodate your business needs. We'll make sure you understand the impact of any changes you make to the recommended plan, so that you can choose the best option among possible alternatives.
- 5. SAAS+:** 4R's unique Software-as-a-Service "Plus" delivery model provides dedicated customer service experts as well as cloud-based software. There are no upfront software license fees, hardware hosting costs, or staff training expenses. Our team consults with you on a weekly basis, ensuring you are getting the most out of our solution.

### Know Your Customers

Using machine learning and other advanced analytical techniques, we look at recent past demand to understand what attributes of your products influence customer buying decisions. To get an unbiased picture, we account for the effects of promotions, seasonality, and stockouts. We also analyze demand transference; that is, what happens when a consumer's first choice isn't available? Putting it all together, we can tell which products will sell best at every location, including items possessing attributes that may not currently be part of your assortment.

### Customizing is Easy

Assortment planning has to deal with real world constraints. 4R supports that by enabling users to customize assortments at the cluster and store levels. Whether it is reducing the number of SKUs offered, retaining a slow-moving SKU purchased by loyal customers, or adding a SKU that is commonly found in large purchases, you can customize 4R's recommended assortments to meet your business needs. You'll be able to see the predicted impact of your adjustments and use that information to choose the best option among possible alternatives.

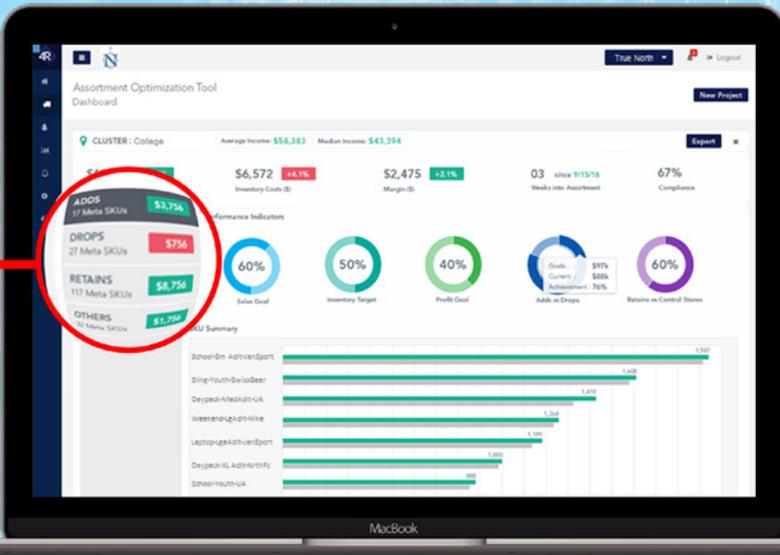
## TOO GOOD TO BE TRUE?

OUR OPTIMIZER BALANCES PHYSICAL CONSTRAINTS WITH PRESENTATION MINIMUMS. RESULTS? BETTER CUSTOMER EXPERIENCE AND INCREASED PROFIT.

# 4R CLIENTS REALIZE 1% TO 3% PROFIT INCREASE BY PLACING THE RIGHT PRODUCTS AT THE RIGHT PLACE & AT THE RIGHT TIME.

4R's solution is designed to increase profit because its processing power enables you to monitor performance of your categories year round, and prioritize resets accordingly.

This feedback loop provides valuable learning that improves the accuracy of your modeling and forecasting over time.



## How Many Unique Assortments?

Once we have calculated the demand patterns for your products, we determine the optimal assortment to carry at each location. However, carrying a unique assortment at every store comes with a logistical cost that most retailers can't afford, so we have included a localization analyzer that tells you how much benefit you get when you move from a one-size-fits-all assortment to multiple assortments.

It uses a proprietary clustering algorithm to recommend the store groupings and the assortments they should carry, and it shows you how much more revenue you can earn with each additional grouping. Armed with that information, you can zero in on the number of assortments that balance your operational capabilities against maximum profitability. At the end of that process you will have a list of the assortment items to be added, dropped, or retained (the ADR list) in each store, as well as the estimated improvement in sales and margin.

When coupled with our Replenishment Service, 4R Assortment Optimization can also quantify the inventory savings associated with the assortment changes.

## Putting it into Action

Knowing what products you want to sell, and where, is half the battle - implementing the changes is the rest of the story. 4R Assortment Optimization has a work flow to manage ongoing assortment planning activities, along with tools to pilot, deploy, and evaluate the performance of assortment changes. Our pilot testing support includes test and control store selection, and comparison of test store performance during the pilot to control stores, predicted test store performance, and test store performance last year. Alerts can be configured to let you know when it's time to consider making further adjustments, turning what was traditionally an occasional major project into an agile continuous process that minimizes drift away from an optimal assortment.

## The Results Speak for Themselves

4R's Assortment Optimization produces measurable results for retailers. In one example, sales for a \$140m category were projected to grow to \$182M, a 30% increase, by deploying optimal assortments to their stores. This translated to a nearly \$9M profit increase. Another client saw store revenues increase 3% to 6% by implementing a small percentage of the changes recommended by 4R.





4R's *inventory as an investment* approach is designed to maximize the profit opportunity of your number one asset: inventory!

### Meet Your 4R Team

There is a whole team of people backing our solution. We perform Quality Assurance on our solution every week prior to delivery, and handle all maintenance and calibration functions. Your client delivery representative and analyst will have a call with you weekly to review our deliverables, provide observations about your business, and find out about upcoming changes or initiatives that might impact your business. At periodic face-to-face meetings we review our performance and discuss topics of strategic interest. If you are facing a new challenge related to inventory management and need guidance, our Analytics team is available to help you sort it out. We put a premium on developing a collaborative relationship and work hard to be a strategic partner.

We are a true partner. Learn more at [www.4rsystems.com](http://www.4rsystems.com).

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US 03/09/17