



PROFIT OPTIMISED OMNI RETAIL SOLUTIONS

Maximise Profit. Improve Customer Experience

At 4R Systems, we look at retail inventory management differently. Replenishment, seasonal allocation, assortment and buying decisions are all designed to achieve maximised profits.

We use advanced analytics based on statistical and machine learning techniques developed from profit optimisation algorithms.





KEY BENEFITS OF 4R'S ASSORTMENT OPTIMISATION

- 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. LOCALISED ASSORTMENTS DRIVEN BY ADVANCED ANALYTICS:** 4R Assortment Optimisation 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 CUSTOMISATION:** 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 analyse 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 highlighting items possessing attributes that may not currently be part of your assortment. The results of which mean increased sales, reduced overstocks/stock-outs, improved customer experience and loyalty.

Customising is Easy

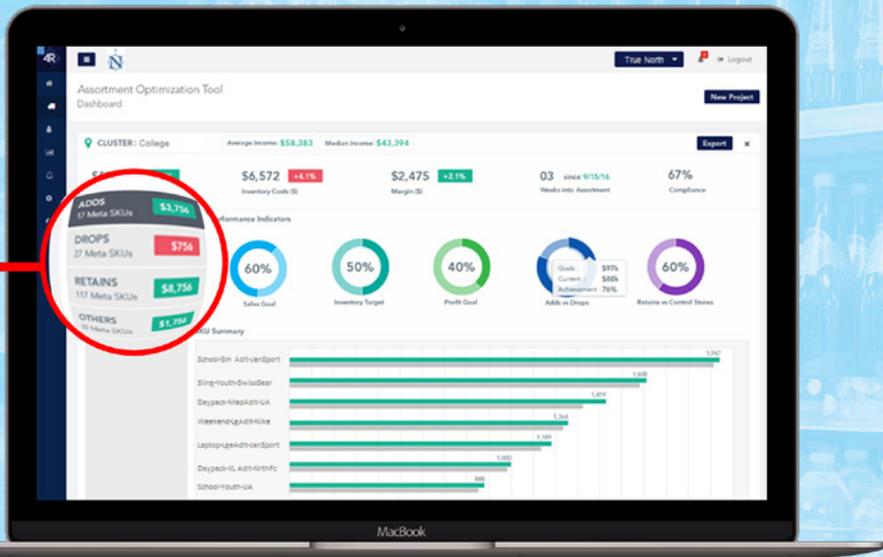
Assortment planning has to deal with real world constraints. 4R supports that by enabling users to customise assortments at the cluster and store levels. Whether it is reducing the number of SKUs offered, retaining a slow-moving SKU purchased by loyal customers, or adding a SKU that is commonly found in large purchases, you can customise 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 OPTIMISER BALANCES PHYSICAL CONSTRAINTS WITH PRESENTATION MINIMUMS. RESULTS? BETTER CUSTOMER EXPERIENCE AND INCREASED PROFIT.

4R CLIENTS REALISE 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 prioritise 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. But carrying a unique assortment at every store comes with a logistical cost that most retailers can't afford, so we have included a localisation analyser 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 Optimisation 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 Optimisation has a workflow 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 minimises drift away from an optimal assortment.

The Results Speak for Themselves

4R's Assortment Optimisation 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 maximise the profit opportunity of your number one asset: inventory!

Meet Your 4R Team

We put a premium on developing a collaborative relationship and work hard to be your strategic partner.

Our analytics team is proactive in help you address new challenges in your business. Your Client Delivery team will regularly review our deliverables, provide observations about your business, and learn about upcoming changes or strategic initiatives that might impact your business.

At periodic face-to-face meetings, we review our performance and discuss topics of strategic value. If you are facing a new challenge to inventory management and need guidance, our analytics team is prepared to help sort it out.

We are a true partner. We guarantee your profit. It's simple. Learn more at www.4rsystems.com/uk/.

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