

Retail Space Planning and Optimization

A FICO® Custom Decision Optimization application

FICO's approach helps you:

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Avoid over-stocking shelves with products that waste space and tie up working capital
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Avoid under-stocking shelves with products that result in lost sales opportunities
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Dramatically cut costs by moving from manual to automated development of planograms
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Conform to overall corporate direction and brand criteria
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Consider a wide variety of factors – dimensions, fixtures, rate-of-sale and aesthetics
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View results both visually and financially

Realize significant improvements in your space planning decisions and minimize the manual effort required to create planograms... FICO gives you the right set of technology to make much more precise macro and micro store layout decisions that meet your unique business objectives. Imagine doing all this while also cutting your decision-making costs, improving your operational efficiencies, creating store-specific planograms and meeting changing conditions for each selling season. Our scalable combination of rules, predictive analytic and decision optimization technology drives improved results for even the largest of retailers – at the store level and company-wide.

The presentation of merchandise plays a major role in financial performance. Yet for any retailer – and especially for those with tens of thousands of SKUs and hundreds of stores – the practice of store layout, planogramming and inventory allocation is extremely complex. With so many overlapping, competing and changing business objectives and constraints, how can a major retailer keep the merchandising process consistently on a profit-maximizing path?

FICO's Decision Management technology helps retailers drive the best use of space by enabling more precise, agile and cost-effective store merchandise decision making. Retailers can flexibly apply optimization technology to meet any of their unique business objectives – whether it's minimizing stocking costs, increasing revenue or boosting profit, for example.

Features	Benefits
A unique combination of predictive analytics, decision optimization technology and rules	Improve the profitability of merchandising decisions with greater precision, and by cutting decision-making costs
Intuitive business user interface via industry leading rules management technology	Significantly improve decisions by incorporating more data and rules into merchandising, and by optimizing choice of decision sets from various options
Visualization capability that allows user to view optimization results prior to planogram creation	Significantly decrease implementation time, and cut model and application costs
The ability to support any number of SKUs (tens of thousands) and an extremely large decision criteria set—including assortment rules, inventory rules and blocking rules	Reduce time and costs associated with reliance on IT
Centralized implementation for enterprise-wide coordination of decision making	Free up merchandiser resources for other important functions such as promotions and pricing
Application at the store level and company-wide across hundreds of locations	Simplify interactions across functional groups across the enterprise
Easy maintenance and operations for business users and analytic staff	Respond quickly and easily to changing conditions and rules by quickly recalculating decision allocations

Extremely complex business challenges require the most sophisticated disciplines. With our approach to retail space planning and optimization, you can simplify and dramatically improve your performance of space planning and allocation decisions through a rigorous analytical approach. With Decision Management, you can automate the allocation of shelf space to quickly and accurately determine the optimal number and location of product facings — on a company-wide basis or at the individual store level.

Optimized decisions with complementary technologies

The FICO solution for retail space planning and optimization incorporates a full suite of analytical and optimization tools to quickly and efficiently create the best overall set of space planning decisions. The platform is made up of FICO’s advanced analytic modeling tools, Xpress-MP optimization engine and FICO® Blaze Advisor® business rules management system.

FICO’s advanced analytics — relied on by businesses worldwide for the most accurate predictions of customer

behavior — help retailers predict true space elasticity through rigorous analysis of vast amounts of historical data. FICO can apply proprietary and innovative modeling technologies to meet retailer objectives, from genetic algorithms and neural networks to Bayesian algorithms and experimental design. In combination with analytic modeling, the solution supports large-scale optimization in micro and macro space planning. Models and optimization can be deployed quickly and easily into operations, and can be easily maintained with a user-friendly rules management interface. Business users can maintain and modify rules, predictive analytical models and optimization constraints and objectives through a common interface.

With its combination of predictive analytics (for facilitating decisions by predicting the outcomes of actions), decision optimization (for choosing the best set of decisions among many options available), and rules (for defining conditions under which decisions can be made), the solution helps retailers make space allocation decisions that best meet its financial needs. It helps retailers make decisions that consider a wide variety of criteria:

- **Assortment rules** — for example, defining complementary products; product ranking criteria such as sales, profits or unit sales; or private label coverage criteria
- **Inventory and positioning rules** — for example, meeting case pack rules; determining the number of days to supply a product on shelf; and the minimum and maximum presence/ facings for products

- **Blocking rules** — for example, brand block rules and product co-affinity and cross-affinity criteria (i.e., which brands or categories can be adjacent to each other or which promote cross-selling into new categories)

Benefits: lower costs, better decisions, flexibility

With the Decision Management approach to retail space planning and optimization, retailers can significantly lower their decision-making costs and operational efficiencies, make more precise decisions, and have the agility to quickly adjust rules and constraints and recalculate decisions as conditions change.

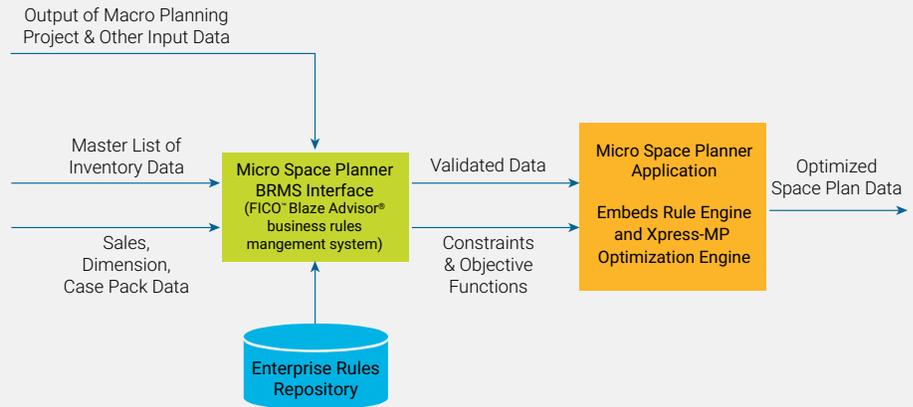
Cut your decision-making costs

The solution dramatically cuts merchandising decisioning costs by automating many labor-intensive elements of planogram creation. It significantly speeds development and deployment by automating manual processes, allowing even large retailers the ability to create store-specific planograms. And since maintenance of models, rules and strategies remain in the control of business and analytic staff, you can significantly reduce your reliance on IT staff. This also means that it doesn't require an IT "project" to change the code and the rules of each layout plan.

Make more precise decisions

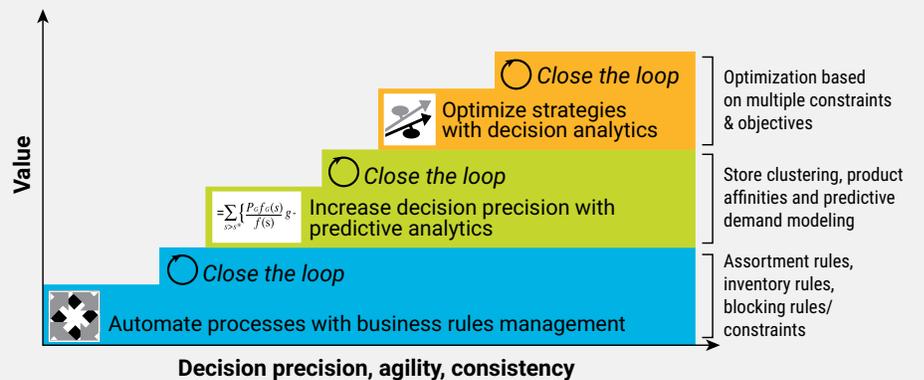
The solution empowers retailers to consider a broad range of inputs for generating more profitable decisions. Retailers can realize the most accurate business decisions and financial benefits for their objectives and

Micro merchandising solution



FICO's approach to retail space planning and optimization incorporates a full suite of analytical and optimization tools to quickly and efficiently create the best overall set of space planning decisions. The solution supports large-scale optimization in macro space planning, and as shown in this chart, micro space planning. This chart shows how data from various sources flows through the solution's rules and optimization engines to create an optimized planning strategy.

A component-based iterative approach



FICO's approach to retail space planning and optimization increases the value of a strategy by starting with the application of business rules — such as assortment, inventory and blocking rules — and augmenting rules decisioning with advanced analytic technologies — such as store clustering, product affinities and demand modeling — and further with optimization technology based on multiple constraints and objectives.

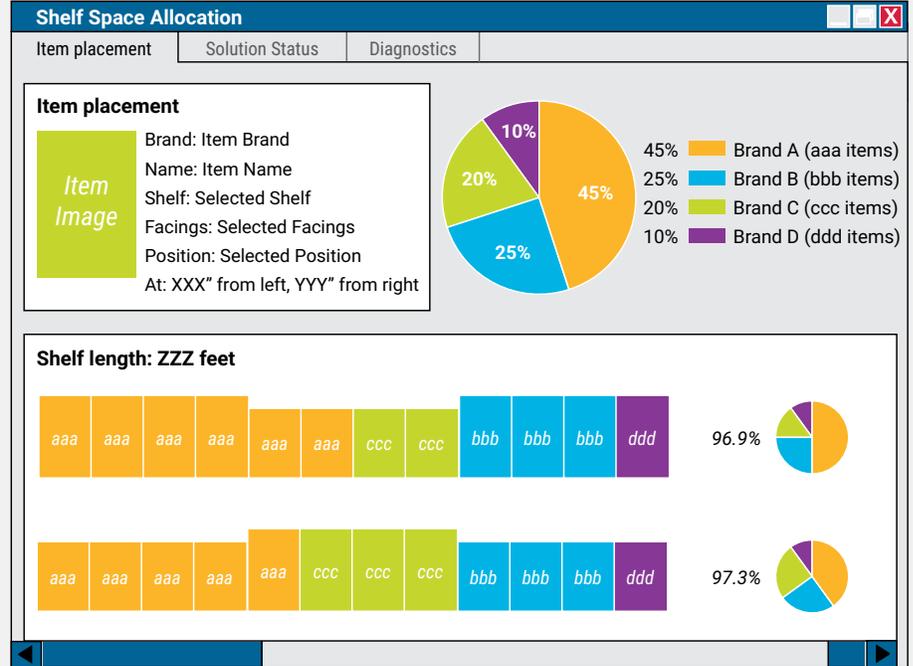
business constraints. For example, it can leverage data from your customer relationship management and supply chain applications; accommodate your approach to customer segmentation and distribution of segmentation by store; and better coordinate the interactions and decision-making of your merchandisers, analytic staff and IT.

Realize greater agility

With the solution’s rapid processing speeds, planners can quickly recalculate and review results of the optimal set of space allocation decisions as conditions or rules are changed. And because it is centralized, strategic changes from the corporate-level can be implemented in all categories across the enterprise in a fast, yet precise and controlled manner.

For more information on how FICO’s Decision Management approach to retail space planning and optimization can improve your merchandising, email info@fico.com or call us at +1 888 342 6336.

Visualization results



Retailers can easily and clearly see the results of various aspects of a strategy produced by the FICO solution. This graph is an example screen shot from the solution showing the results of a shelf space allocation strategy.