



Smart Store Layout Space Optimization

Client

Grocery Chain in Phoenix,
Arizona

Industry

Grocery Food Retail

Solution

AI-Powered Store Layout
Analytics Space Management
Platform

Challenge

Phoenix grocery chain with 68 stores faced suboptimal product placement reducing sales by an estimated 12%, \$4.1M opportunity costs from inefficient space allocation, limited understanding of customer shopping patterns and product adjacency effects, manual planogram development taking weeks per store reset, and difficulty adapting layouts to local demographic preferences and seasonal demands.

AI Consulting Approach

- **Store Analytics Assessment:** AI consultants analyzed customer movement patterns, purchase correlations, and space utilization data to identify layout optimization opportunities using retail space analytics and customer behavior modeling techniques.
- **Comprehensive Layout Intelligence:** Advanced algorithms processing basket analysis, customer flow data, product performance metrics, and demographic factors to optimize store layouts and product placement strategies.

AI Solution

- **Customer Flow Analytics:** AI system tracking in-store movement patterns and identifying high-traffic zones, bottlenecks, and underutilized areas for optimal product placement
- **Product Placement Optimization:** Machine learning models analyzing purchase correlations, seasonal trends, and margin considerations to recommend optimal product positioning and adjacencies
- **Space Allocation Intelligence:** Advanced algorithms optimizing shelf space allocation based on product velocity, profitability, and local customer preferences



- Planogram Automation: Intelligent system generating store-specific planograms considering local demographics, seasonal factors, and space constraints

Implementation (22 weeks total)

- Store Analysis (4 weeks)
- Analytics Platform Development (8 weeks)
- Layout Testing (7 weeks)
- Implementation Training (3 weeks)

Key Results

Sales Performance:

- 8.5% increase in comparable store sales, \$2.9M revenue improvement from optimized product placement, enhanced product discovery and cross-selling effectiveness

Space Efficiency:

- 35% reduction in planogram development time, improved inventory turnover rates, better utilization of premium store locations

Business Impact:

- \$3.4M annual value creation, strengthened competitive positioning through superior store experience, 185% consulting ROI, enhanced local market responsiveness

Technologies:

- Customer flow analytics
- space optimization algorithms
- planogram automation tools
- basket analysis systems
- demographic integration platforms