

# Macro Space Planning to Get More Out of the Box

## Abstract

Our experience with macro space initiatives for retailers globally has shown that developing optimized macro space plans based on customer insight can increase sales by 5% or greater. As margins from sourcing shrink and customers become more demanding than ever, retailers are constantly striving to engage customers in-store, delivering a best-in-class shopping experience with increasing variety of products. However, retailers are restricted by the limited retail floor space. Expanding business in the same retail floor space requires enormous planning and successful implementation of plans.

## The Need for Macro Space Optimization

Today, macro space optimization is playing an increasingly important role in meeting the profitability objectives for retailers globally. However, while retailers want to optimize their macro space utilization to engage customers better, they rely on ad-hoc approaches driven by gut-feel or multiple manual revisions.

Effective macro space optimization has to be built on information that goes far beyond just sales numbers. It needs to be proactive, taking into account factors like customer behavior, store characteristics, competitors, category role and more, to predict ideal floor space allocation that will identify the highest incremental increase in a category's space.

## Factoring in Critical Data

While data analysis has yielded significant results to manage the supply chain, forecast sales, and plan in-store promotions, retailers have not been able to leverage it for conducting macro space planning, primarily due to the absence of appropriate technology and processes. Many retailers simply don't have the tools that will help them factor in data about customer preference, behavior, and role into their planning process. Critical data comprises:

- Demographics of the shopper and the store trade area
- Competition in the trade area and relevant to the category
- Weather
- Traffic
- SKU size
- Customer loyalty
- Store characteristics
- Category role
- Fixture profile
- Labor costs
- Market coverage
- Location of the category in the store and its proximity to the door, center store, and/or experience zone
- Category adjacencies
- Assortment coverage
- Shopper trips and missions

In the U.S. alone, retailers lose an average of 1.3% or \$54 billion of sales through shrink per year<sup>4</sup>.

And several other factors

These factors help to remove the impact of things that impact sales, to establish true and more accurate impact of space on sales. Retailers based on this can identify categories, which have more incremental opportunities rather than just basing the decision on the space productivity of the category.

## The Key Elements of Change

The space optimization program necessitates capability development to handle large volumes of data coming in from different streams. An algorithm mature enough to represent the dynamic relationship of space with sales, and process definition to provide a basis for space change recommendation are needed. Capability augmentations necessary in each pillar for an effective space optimization solution include:

- **Bringing science to instinct:** The algorithm used for space change modeling is the core of the optimization effort. It must manage the entire range of critical data and have the capability of incorporating more data streams from both structured and unstructured sources, as and when their impact on sales reaches a significant level.
- **Extending process to include heuristic optimization:** The vast experience of merchandise managers is a key asset that should be leveraged in the overall space planning exercise. A solution environment that provides 'what-if' capabilities to run scenarios that closely approximate the nature of the category and the retailer's expectation from the category will help maximize gains while maintaining the brand promise of the retailer.
- **Rendering scales through investment in right technology:** The primary change agent in space optimization is critical data and its relationship to sales, which has been rapidly increasing. Retailers need to invest in appropriate technology such as Big Data to have significantly faster and more scalable analytics.

## Overcoming Macro Space Optimization Challenges

There are several challenges impeding the adoption of macro space optimization—here are some of them, and their mitigation strategies:

Challenges in Adoption	Mitigation
Space expansion for one category comes at the cost of others.	Adopt a department-wise approach to minimize conflicts. Also use senior leadership to drive alignment across departments.
Stakeholders often have little belief in a black box algorithm.	Create greater understanding of the science behind the algorithm. Also demonstrate value, implement change management and improve communication, and verify prediction capabilities.
Factors other than space—such as price changes, promotions, weather, macro economy, and competition—also affect sales.	Collaborate with vendors and partners, use sophisticated algorithms to isolate the impact of space, and demonstrate results.
Often sophisticated algorithms require large amounts of data and the results and iterations need to be done in a short time.	Collaborate with vendors and partners, leverage Big Data to analyze large data sets, and build models to scientifically process data and provide recommendations in near real time.

## Success Spotlights

Innovative retailers are beginning to reap the benefits of this advanced approach to macro space optimization. Harnessing critical customer knowledge, and adopting a scientific, algorithm-driven approach to macro space planning, here's how some retailers are getting 'more out of the box'.

### Case 1: Space Reallocation

A major retailer wanted to introduce an Activity Center in a bid to increase store footfall.

Their goal was to increase sales and reduce inventory. Using critical data such as demographics, SKU sizes, store location, and others, they reaped a benefit of 5% increase in sales and have a business case of \$54 million over 3 years.

### Case 2: Category Addition

Faced with increased local competition, a retailer wanted to transform some of its locations into superstores by adding a full grocery section. Using critical data and the recommended approach, they created a macro space plan for stores in low density and low income areas. The category addition exercise resulted in a 4% increase in comparative sales.



### Case 3: Category Growth

Owing to stiff competition from specialty stores and online players, a leading US retailer wanted to rejuvenate its pets category. It was found that 60% of the cats in the country suffered from obesity and they wanted to introduce new lines for healthy cat food. Considering over 500 factors such as weather, traffic, demographics of pets, and store location, certain stores were identified as dog stores and others as cat stores with opportunity to expand into a healthy line of cat food products. This localized space allocation with macro space optimization enabled retailer to yield 3–5% increase in margin dollars.

### Case 4: Experience Centers

A leading retailer wanted to convert its stores into experience centers for electronics. With various brands having product release cycles at different points in time, they had to relocate space to create unique experiences for latest products based on their popularity and market potential. Macro space was optimized considering demographics, customer preferences online and in store, affinity, competition, and market potential leading to 3–5% increase in sales and margins.

## Conclusion

Modern retailers strive to improve their macro space utilization to achieve high levels of availability and variety for their customers, while rendering a uniquely pleasant in-store shopping experience. While they experiment with different sizes and layouts for their stores, it is highly critical that customer and store-centric factors that drive financial objectives are blended into traditional models that are only based on performance data. An ideal solution must blend in the optimal amount of science in the form of a mathematical model, leveraging cutting edge cost optimized technology resulting in a simpler space allocation process and maximum financial returns from limited real estate.

## About The Authors

### Shilpa Rao

Shilpa Rao is Practice Head for Merchandising at TCS, and is responsible for strategy and development of merchandising and analytics offerings and solutions. She has worked with over 16 global retailers across retail formats, including 8 out of the Top 10 retailers in the US, in the area of process, information technology, and business consulting, focusing on merchandising, especially space and assortment optimization.

### Amrit Singh

Amrit Singh is a functional consultant with TCS' Merchandising team, and is responsible for channelizing thought leadership across merchandising areas including macro-space, and pricing, promotion, and omni-channel strategies.

## Contact

Visit TCS' Retail unit page for more information

Email: [retail.solutions@tcs.com](mailto:retail.solutions@tcs.com)

Subscribe to TCS White Papers

TCS.com RSS: [http://www.tcs.com/rss\\_feeds/Pages/feed.aspx?f=w](http://www.tcs.com/rss_feeds/Pages/feed.aspx?f=w)

Feedburner: <http://feeds2.feedburner.com/tcswhitepapers>

## About Tata Consultancy Services Ltd (TCS)

Tata Consultancy Services is an IT services, consulting and business solutions organization that delivers real results to global business, ensuring a level of certainty no other firm can match. TCS offers a consulting-led, integrated portfolio of IT and IT-enabled, infrastructure, engineering and assurance services. This is delivered through its unique Global Network Delivery Model™, recognized as the benchmark of excellence in software development. A part of the Tata Group, India's largest industrial conglomerate, TCS has a global footprint and is listed on the National Stock Exchange and Bombay Stock Exchange in India.

For more information, visit us at [www.tcs.com](http://www.tcs.com)