



## The Fine Art of Analytics



### BRP SPECIAL REPORT

A supplemental report based on the findings from the  
2016 Merchandise Planning Benchmark Survey

Platinum sponsor:



*“Real-time analytics is a game changer for retailers. Transforming big data into actionable insights enables retailers to make smarter decisions across the enterprise.”*

- Gene Bornac, Vice President, BRP

## Introduction

Today's retail executives have more opportunities to collect actionable data than ever before. Evolving technology has made real-time gathering of valuable business data across multiple customer touch points a reality. Whether mobile, in-store, online, or originating via social media or through location services, a true wealth of information is available to inform all aspects of organizational decision-making. The ability for retailers to understand their customers, predict what they want to purchase, and even shape their behavior is driving the need for better analytics.

Analytics serve as an important tool to find and interpret meaningful patterns in customer and inventory data to support decision-making. Insight into customer demand, price sensitivity, and reaction to promotions, demographics and more are key to drive merchandise plans and actions that maximize profitability. This is especially critical in an omni-channel environment, as understanding the preferences of disparate customer groups across different channels becomes more complicated.

Data is extremely valuable, particularly when analyzed in aggregate through the lens of an analytical tool. The consolidation of various data points enables a unified, comprehensive view of customers and products to help retailers make smarter product decision and offer more personalized customer experiences. Furthermore, it can act as the catalyst to encourage proactive, rather than reactive, retail actions in real-time.

This special report based on findings from BRP's 2016 Merchandise Planning Benchmark Survey explores current trends relating to data and analytics, the challenges being faced by retailers, and exciting future opportunities that exist within this space. It also addresses next steps for retailers to make the most of the data that exists today across their organization.

## Prioritization of analytics

Evaluating and incorporating all available insights in planning and allocation decisions greatly enhances outcomes. Merchants should consider using every data point available in the planning process, including: business intelligence, inventory movement, shopping behavior, customer relationship management (CRM), social media, clienteling data and customer demographics/segmentation.

Retailers know that understanding the finer details of their business remains key in satisfying consumer demand, fulfilling inventory, and maximizing revenue. Strategic business questions are becoming more complex and cross-functional, requiring more disparate data to be referenced concurrently and connectedly to influence decisions. It is becoming essential for retailers to broaden their analytical capabilities to effectively address these complicated quantitative questions. Analytics provide advanced visibility into sales performance by channel, by assortment, and further by item, which helps guide more accurate planning and allocation decisions.

44%



indicate that improving analytics is a top priority

This importance of enhanced data and analytics is not lost on retailers. In the Merchandise Planning Survey, 44% of retailers identified improved analytics as a top priority. More than 82% of retailers identified the need to either implement new or improve their existing planning systems across channels. As technological capabilities continue to advance, investing more resources into data utilization will remain a predominant objective for retailers.

Retailers recognize the value of having the tools necessary to improve data visibility. However, the degree to which this is deemed vital to their future success and growth remains unclear. Analytics has received much recognition in the industry, but there still appears to be a marked delay in the integration and unification of business information enterprise-wide.

### Implementation challenges

Based on survey findings, the ability to leverage analytics to improve organizational performance lags intent. Retailers have been slow to implement the foundational suite of tools needed to truly enable real-time analytics. In fact, only 17% of respondents receive sales data in real-time, with the other 83% lagging in data availability (**Exhibit 1**). Fewer still, if any retailers, update legacy systems in real-time. As a result, there are technological roadblocks to successfully gathering, understanding and utilizing analytics in real-time and cumulatively within their business environments.

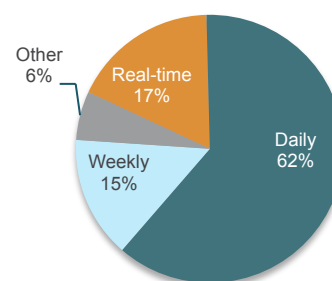
Lack of a unified view across the organization may be another obstacle standing in the way of using analytics to impact planning. 42% of retailers cited either disparate systems or processes as one of the two largest struggles relating to planning (**Exhibit 2**). Though omni-channel and unified commerce have been the buzzwords for the past few years, the reality is, orchestration continues to fall behind.

Another factor is the limitation imposed by lack of organizational training, internal skills, and resource or cultural constraints. A quarter of those surveyed cited one of the above as their largest planning obstacle. Once new tools or an omni-channel vision is defined, business processes must be redesigned across all segments to align accordingly with technological capabilities. This evolved model can prove to be challenging for many organizations.

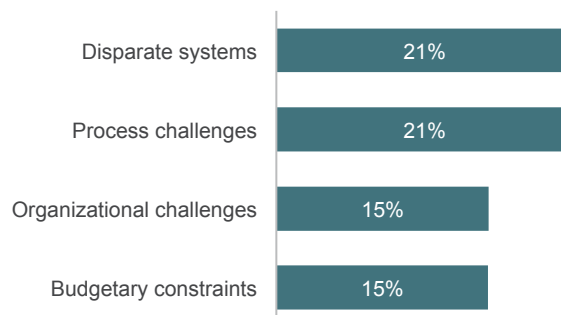
Furthermore, rollout of a new analytics solution is most effective when issued organizationally from leadership down, with change management measures designed to help employees adjust to new planning processes. Gaps in staffing can also hinder effectiveness, particularly when deployment is done in a siloed manner without a comprehensive enterprise analytics strategy. Results can include underutilization of capabilities as well as an absence of the requisite knowledge of existing tools and data to ensure their efficient use.

Also noteworthy is the need for analytical literacy and talent at many retailers. This continues to be a hurdle, as many struggle to locate the internal resources needed to leverage big data in ways that bring value to the business. Retailers continue to work on translating available data into actionable business strategies that bring about competitive differentiation.

**Exhibit 1**  
Timeliness of Sales Data Availability



**Exhibit 2**  
Biggest Planning Obstacles





Conversely, those that have implemented robust analytical capabilities must appropriately allocate the weight of findings. Though big data can offer significant insights regarding customer preferences, retailers must ensure an appropriate balance is struck between the art and science of retailing. While underutilization of analytics leaves significant opportunity on the table, leaning too heavily on big data can prove to be detrimental and paralyzing for retailers. This is especially the case when common sense is abandoned in favor of analytical discoveries. Despite the progressive accuracy of technological tools, a human perspective is still necessary to give quantitative findings context, particularly when using them to make major strategic decisions. While AI like Watson has the capability to provide tremendous insight, the human element is still necessary for interpretation.

### Lagging social media use

Another arena ripe for data mining, but currently underutilized, is social media. Though the value of social media feedback is indisputable, retailers are hesitant to incorporate this information into business processes and decisions. Social media gives retailers unprecedented visibility into their customer base and can serve as an extremely powerful tool for collecting customer feedback to affect merchandise planning, pricing, promotions and allocation decisions. Retailers can understand who she is, what she wants, when and where she wants it, and even why, based on social media postings and feedback.

Similar to findings last year, retailers are just scratching the surface when it comes to leveraging social media content. Though 65% of retailers are capturing customer feedback via social media, the survey revealed gross underutilization of the data to influence decision-making. Results indicated that only slightly more than one-fourth of total respondents are integrating social media data to impact business decisions (**Exhibit 3**). Social media is an important source of information that presents an often-untapped wealth of insights.

**Exhibit 3**  
**Customer Data Integrated into Planning Process**

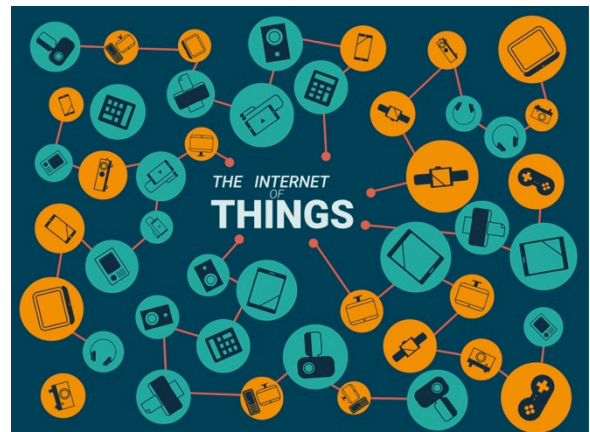
Social media data (e.g. preferences, affinities, trends)

26%

### Future possibilities

Once analytics systems are established, evolving to a real-time intelligence model will enable retailers to truly differentiate their offerings – an imperative to the success of omni-channel retailers. Some relevant trends in analytics that retailers should consider include:

1. **Decision modeling** – Optimizing analytics systems begins by breaking down and modeling key decisions based on various input parameters and permutations. Understanding the key components of critical decisions can enable retailers to transform larger decisions into smaller, quantifiable chunks, and thereby increase their confidence in their decision-making process.
2. **Internet of Things (IoT)** – As more devices become Internet-ready – including everyday objects such as coffee makers and lamps - the amount of data available to retailers to profile their customers and better understand behaviors will increase exponentially. With this explosion of data, it is even more critical to understand decision modeling – identifying what data actually drives key decisions and what data is merely excess noise.
3. **Graph databases** – While not necessarily a new technology, graph databases are currently gaining



popularity as a means for retailers to visually see and understand relationships between entities and identify drivers and dependencies. For example, within a merchandise assortment, graphs help identify which products have an impact in driving ancillary sales to other related items or which ones are dependent (and how many) on other key items.

4. **Analytics expansion across functions** – No longer just a marketing or CRM initiative, analytics can drive value to a retailer in any function, including finance, HR, IT operations, supply chain, store operations, logistics, cyber security and more.
5. **Increased need to use open source tools** – Analytics toolsets are no longer limited to standard software packages. Data scientists utilize several open source tools and retail IT organizations need updated technology standards to permit downloading and usage of these tools.
6. **Real-time retail** – Over the next five years, adoption of cloud-based POS is expected to accelerate. Because of decisions made 50 years ago around networks, retailers decided to decentralize stores and place hardware, software, customer and product information in every store and batch that information and poll nightly and update legacy applications daily or even weekly. The network today has 100% up time guaranteed and with cloud based POS comes real-time analytics.... the new retail frontier.

## Case Studies

Below are examples of a few organizations that are using analytics to the fullest.

### Dynamic pricing

- Kroger is currently testing the ability to offer personal pricing and product suggestions based on preferences and history gathered by the mobile app and sensors locating the customer in the store.<sup>1</sup>



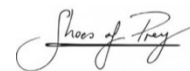
### Personalizing the customer assortment

- Retailers have realized that personalized recommendations while shopping online are finding traction and greater conversion rates with consumers. Both 1-800-flowers.com and North Face have successfully implemented the capability of applying past buying history to make product suggestions to consumers.



### Customized products and assortments based on customer feedback

- Custom-built software now allows customers to design their own items for purchase. Retailers like Shoes of Prey and IndoChino are offering completely customized product lines. Rich data exists in these transactions, both on the order entry side and once the order is completed.

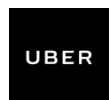


- By combining data derived from their customer loyalty program and pairing it with sales and inventory data, Whole Foods is seeking to improve category management at each store and offer localized assortments to their customers. This also includes more individualized store pricing and promotions, as well as tailored supplier strategy, to minimize inventory costs and improve profitability.



### Leveraging customer data to determine new store locations

- Uber has tapped into the potential of re-selling data points collected on clients to retail organizations.<sup>2</sup> By analyzing collected metrics on passenger drop-off and pick-up



<sup>1</sup> "Will Smart Shelves ever be Smart enough for Kroger and Other Retailers?" February 28, 2017. <http://www.retailwire.com/discussion/will-smart-shelves-ever-be-smart-enough-for-kroger-and-other-retailers/#comment-121254>

locations, as well as times and dates, they have amassed information on foot traffic at certain destinations as well as customer concentrations and prevalent paths-to-purchase. They are now selling this data to companies looking to open new brick-and-mortar locations.

## Next steps

As your organization implements an analytic-centric landscape or new analytics tools, reference the following best practices (**SCOPE**) to help guide the process:

1. **Sharing** – Promote data and information sharing between business segments. This should include collaboration amongst your key decision-makers, including planning, merchandising, marketing, operations and supply chain.
2. **Consolidation** – Until implementation of appropriate technology becomes possible, aim to manually consolidate and consider data points cumulatively across the enterprise. In the short-term, you may need to invest in a workaround or interim tool that makes this objective feasible.
3. **Outsource** – If you are unable to implement using internal resources, utilize outside experts to provide analytics services and interpretation of existing data. Outsource services may also be helpful in setting up internal training for employees and provide your organization with improved data literacy.
4. **Principles** – Make enablement of real-time data throughout the enterprise a primary guiding principle for future software selection and implementation initiatives.
5. **Education** – Communicate the benefits of a data-driven focus to top executives and the entire operations team. Provide educational sessions to train employees and get buy-in.

## Conclusion

Despite readily available data, retailers are often challenged to successfully understand and utilize analytics. Among most organizations, the ability to leverage analytics to improve business performance lags intent due to a lack of organizational alignment and inconsistent processes.

Implementation of a successful unified commerce analytics approach requires organizational alignment across all business segments. Without organizational alignment, it is difficult to maximize the benefits that big data can bring to omni-channel performance.

However, as organizations increasingly integrate their systems, omni-channel opportunities to gather and utilize data in interesting ways to make smarter merchandising decisions will continue to abound. Real-time analytics are a key part of identifying and understanding the customer across channels and creating the right assortment available at the right time for that customer. By prioritizing investment in a systems architecture that handles collection and utilization of data universally across the organization, retailers can best position themselves for profitability and key differentiation to their customers.

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<sup>2</sup> “UberRetail Uses Mobile Data To Evaluate Potential Store Locations,” January 31, 2017, <http://www.retailtouchpoints.com/features/solution-spotlight/uberretail-uses-mobile-data-to-evaluate-potential-store-locations>



## About BRP

Boston Retail Partners (BRP) is an innovative and independent retail management consulting firm dedicated to providing superior service and enduring value to our clients. BRP combines its consultants' deep retail business knowledge and cross-functional capabilities to deliver superior design and implementation of strategy, technology, and process solutions. The firm's unique combination of industry focus, knowledge-based approach, and rapid, end-to-end solution deployment helps clients to achieve their business potential.

BRP's consulting services include:

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