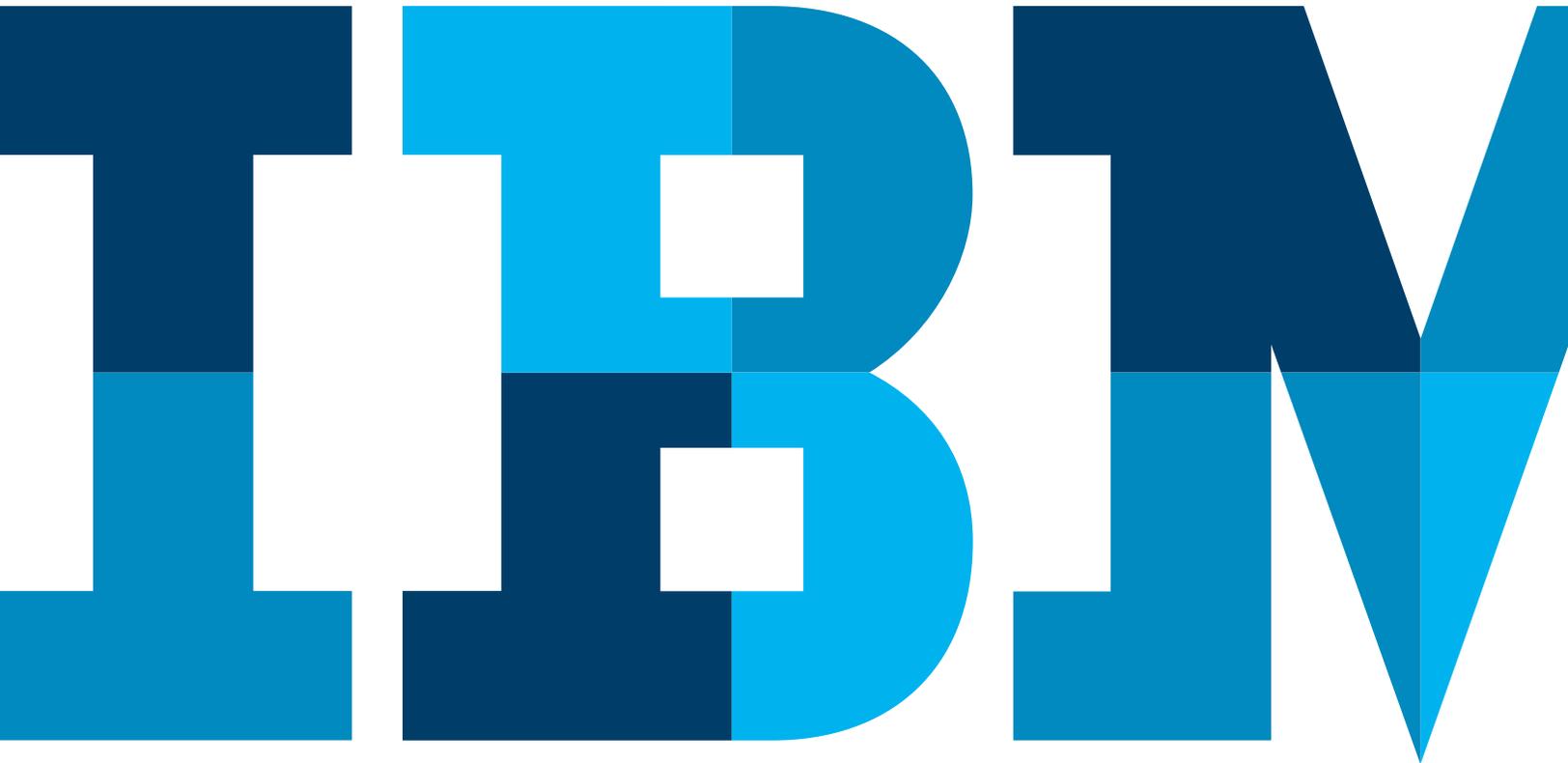


Customer-centric merchandising analytics

A buyer's guide



Today's customer—empowered, connected

The exploding use of smartphones—now reportedly past 60 percent penetration in the US market¹—has turned “price check on aisle seven” into a vexing circumstance for retailers.

Today's empowered, connected customers wield their mobile devices to attain a degree of price transparency that was undreamed of just a few years ago. With the power literally in their hands, they research, share, compare, and even make purchases with more confidence and less friction.

Connected customers choose the mode and sequence of interaction, according to his or her preferences of the moment. As a result, retailers face more challenging pricing, promotion and product decisions than ever before:

- Traditional price competition is fiercer than ever, with competing retailers monitoring each other's prices closely and trying to undercut each other.
- New pricing models have emerged, such as “flash sales” and daily deals that can throw a retailer's traditional promotional strategy into disarray.
- Online and mobile price transparency is at an all-time high. Customers now routinely compare prices from retailer to retailer with just a few clicks—often while they are standing in store.
- As they endure the ups and downs of the economy, the price sensitivity of customers has increased, making it harder for retailers to set prices that both attract customers and leave adequate margin.

- Online shopping has created “endless aisles” or “hanging rails”, making defining the right assortment even more complex as retailers seek to profitably balance exhaustive product choices with enough limits to make the selection process manageable for customers.
- There are more opportunities than ever before to target individual customers with personalized messages, offers and prices. This increases the number of variables a retailer must consider when making these decisions.

4 in 10 smartphone users search for an item in a store

Comparative pricing is just part of the new equation, of course. Today's customers arrive armed with insights from product reviews, social media sharing and competitors. They search and download offers and coupons. They tend to be aware of prices across the street, across town and across channels. And they carry a hand-held databank to help ensure the most successful outcome.

With so many moving parts, the imperative to apply principles of customer-centric retailing to merchandising tactics has moved from a nice-to-have to a must-have. In an IBM study of 1,700 CMOs, released in 2011,² 79 percent indicated that they expect a high or very high level of complexity in their work as marketers in the next five years. But only 48 percent of CMOs indicated they are prepared for the complexity they anticipate. This leaves an as-yet-unresolved “complexity gap” of at least 31 percent of companies. Key challenges most often cited by respondents included the explosion in data; the rise of social media use; the growth of channel and device choices; and shifts in customer demographics.

80 percent of CEOs think they deliver a superior customer experience; 8 percent of their customers agree

Retail businesses today are challenged on many levels by the rise of the connected customer. Today's customers are almost obsessively well-informed. They rely on other people (both friends and strangers) as their primary information source.

They interact with retailers and brands through multiple channels, touch-points and media. They expect (but rarely get) a superior customer experience—and they have public channels for instantly venting frustration when they do not get what they want.

In other words, there has been a power shift. Customers are empowered in ways they have never been before, and their expectations are greater than ever too. To serve them well, retailers must define and enable their business practices to put customers firmly at the center of everything they do.

Customer-centric retailing is based on the recognition that the rise of the empowered customer requires key business processes—buying or manufacturing goods to sell, marketing them, selling them and servicing those who bought them—that are better connected to the customer, and therefore logically, better connected to each other.

Merchandising analytics—seven key factors

For retailers who recognize the importance of performance excellence in the era of the connected customer, a sophisticated and powerful merchandising analytics platform is essential. It is no longer sufficient to leave the burden on the shoulders of individual analysts and their skills with generic tools like spreadsheets, or statistical packages.

With so much ground to cover in daily decision making, industry leaders arm their merchandising professionals with tools built to deliver faster, more relevant answers with consistency and intuitive ease. Following are seven key factors that senior retail managers should consider closely when engaged in a decision process regarding their next merchandising analytics platform.

86 percent of customers use multiple channels

Factor #1: Does your merchandising analytics platform cover the four key functional areas?

Most retailers struggle to assemble a comprehensive understanding of the customer. They may not have tools in place to make informed decisions across all facets of their merchandising work. If they do, they may be challenged by the absence of a platform that enables coordinated action.

The merchandising analytics solution set must therefore be sufficiently complete and interconnected to enable merchandising decision-makers to act with confidence, in a reasonable time frame. Key functional areas for merchandising planning and execution include:

- Base or initial price
- Promotional price
- Markdown or clearance price
- Assortment

These four areas are interrelated and connected in fairly intimate ways, so that a portfolio of targeted, separate solutions may not lead to well coordinated results. When an assortment decision has an influence on customers' perception of a private label price gap; or a promotional response is affected by markdowns in another related category; only a consolidated platform can help the merchandiser anticipate the issue, visualize it and adjust tactics.

Factor #2: Does your analytics platform give you a handle on cross effects?

One of the crucial learnings that emerged from the development of price optimization solutions as far back as the 1990s is that no event is unconnected from any other event. A change in price of one item may have a measurable influence upon its sales, subject to norms of price elasticity. At the same time, it may influence the performance or customer response to other items. Commonly observed cross effects include cannibalization—where increased sales of one item correlate with reduced sales of another item, and halo effects—where increased sales of one item correlate with increased sales of another item.

The principles of cross effects extend over the four dimensions enumerated in Factor #1. When price, promotion, markdown and assortment are considered in concert, interactions may be observed that are unexpected—such as a change in assortment having an impact on customer's response to a base price, or when branded items on sale affect customer's takeaway of a private brand alternative.

Analytic solutions that rely on isolated processes or even isolated data sets will be unable to factor in these interactions. As a result, practitioners will be blind to the consequences of their decisions and unable to craft future actions that take advantage of valuable insights. A high-quality merchandising analytics solution will expose decision makers to all the implications of their plans and options, including the cross effects.

Factor #3: Does your merchandising analytics platform enable you to balance department or category goals with customer loyalty goals?

Incorporating the customer into the equation means moving beyond what we think we know about our business and applying proven science that lets us better understand our customers on an empirical level. From this we gain the ability to evaluate and compare numerous scenarios for merchandising management. Among the objectives we strive to keep in balance are:

- Maintain price competitiveness by adjusting retail prices on the image items for key customer segments
- Drive sales and profitability
- Protect corporate brands by properly managing price gaps and price tiers
- Deliver relevant offers to customers based on an understanding of their interests, and their value to you
- Design assortments that meet local demand and deliver profitability and sales goals

These goals are best achieved when we can enlighten merchandisers about competition and trends and give them empirical tools to model and predict results and measure outcomes at the customer and segment level.

On the customer-facing side, the ultimate goal is to increase relevancy through messages and tactics. Data analytics let you know and understand your customers. Modeling response lets you forecast and track what products your customers buy and what vehicles or tactics they respond to. With those insights in hand, you can build the right messages and tactics for each group, and monitor and understand their responses.

Factor #4: Can you access analytics in the context of managing the overall process?

In today's retail companies, managing all marketing and merchandising efforts in a cohesive way is nearly impossible without the help of software-based automation.

Managing retailer promotions is an especially complex process, with a great many moving parts, and numerous participants. An effective, practical system should be integrated from the beginning of the process to the end. This enables merchandisers to pursue the following actions on a daily basis:

- Define promotional strategies
- Negotiate deals with manufacturing partners
- Take those deals and leverage them in customer-facing events
- Automate and scale the versioning of those events to meet local demand

To make this happen with greatest benefit, it is desirable to infuse the planning process with analytics designed to optimize the performance of promotional offers and events. A well-designed, well-conceived, shared platform should enable users to publish promotions across customer touch points, including ads, circulars, catalogs, direct mail, mobile, e-mail, web, in-store signage and promotional displays.

Factor #5: Do your solutions fit within the larger customer-centric framework at your organization?

Retailers need a common, consistent platform to manage their marketing and merchandising. Actions may then be based on the insights from a comprehensive understanding of each customer, and those actions coordinated in the way empowered customers demand.

For favorable impact on the business, and to best meet customer expectations, merchandise planning should not be done in isolation from other key functional areas within a retail organization. Over-arching considerations may include the management of the marketing mix, customer loyalty programs, and corporate positioning, to name a few.

IBM takes a broader view. A comprehensive merchandising analytics solution should take advantage of this power and reach.

Factor #6: Do you rely on purpose-built applications with strong record of performance in the market?

Generic "enterprise" solutions may come bundled with merchandising analytics tools that claim to meet the evolving requirements of today's leading retail organizations but, in fact, lack the sophistication to make them truly impact your business.

Moreover, demand modeling is an area of specialized know-how. Custom-built applications are a risky approach, even when constructed within a name-brand statistical package. The required science is sophisticated, and compromises are likely.

A superior alternative is to adopt analytics tools that have been battle-tested and designed from the DNA-up to deliver reliability, comprehensive features, and ease of use.

Factor #7: Do your solutions take full advantage of the inherent benefits of cloud-based deployments?

There are numerous advantages to deploying and delivering a merchandising analytics solution in the Cloud, including.

- Reduce time and effort to deploy and configure
- Reduce resource commitments to ongoing maintenance and updates
- Limit hardware capital investments
- Limit help desk expenditures
- Position for future growth and expansion of user base
- Take advantage of world-class data security protocols
- Extend analytical capabilities to trading partners

A successful merchandising analytics platform can be installed on a company's own servers where circumstances require it, but organizations should consider the total value proposition of a cloud-based approach.

IBM's omni-channel merchandising solutions deliver on the seven key factors

IBM's solutions are built to deliver on the principles of customer-centric retailing, providing functionality, performance, and ease of use across each of the seven key factors discussed in Section II of this guide and summarized in Figure 1 below:

Merchandising Analytics Factor Comparison		IBM	Niche	BI	ERP
1	Covers four key functional areas: Merchandising analytics, platform that spans and integrates price, promotion, markdown, and assortment optimization	●	◐	◐	◑
2	Provides a firm handle on merchandising cross-effects (halo, cannibalization, price gaps, interactions)	●	◐	◑	◑
3	Provides a functionality at both the category and customer level: Able to balance category goals with customer loyalty goals	●	◐	◑	○
4	Capabilities that evaluate analytics in context within essential business process	●	◑	◑	◐
5	Part of larger customer-centric retailing solution (encompassing cross-channel marketing, marketing performance, digital marketing)	●	○	◑	◑
6	Purpose-built applications with strong record of performance proven in the market	●	◑	◑	◑
7	Takes advantage of Software-as-a-Service (SaaS) deployment, inclusive of modeling as well as data integration	●	◐	◑	◑

Key: ● = 1; ◐ = 3/4; ◑ = 1/2; ◒ = 1/4; ○ = 0

Source: IBM 2013

Figure 1: Seven key areas of differentiation for merchandising analytics

Factor #1: The IBM omni-channel merchandising platform covers the four key functional areas.

With applications for base, promotional and markdown price as well as assortment, the IBM platform empowers merchandising professionals with more reliable forecasts, superior insights, and an enhanced ability to monitor and measure success.

The solutions are integrated through a Master Calendar feature designed to facilitate the sharing of information related to base pricing, promotional activity and markdown execution in a single view.

It tracks information about your company's merchandising activities at various levels of detail, enabling retailers to visualize the combined forecast for their merchandising decisions and compare against both corporate goals, and actual performance.

Factor #2: IBM's solutions give retailers a firm and comprehensive grasp of cross-effects.

IBM's solutions operate off a common data set that enables practitioners to visualize and act upon the results of their choices. If an assortment decision impacts price response, this can be monitored and managed. If private label price gaps alter the impact of a promotion, this can be monitored and managed. Nothing happens in a vacuum. No decision silo is isolated from the outcomes of other decisions.

For example, when a decision is made to add an item to the assortment, the pricing solution needs to be aware of this as it will impact the performance of existing, substitutable products.

Similarly, promotions naturally interact with base pricing, by influencing brand choice. An inadvertent effect may be to also lower price expectations within the competitive set or to negatively influence sales of private label items.

Each of these consequences presents a secondary influence on the outcome of a given merchandising decision. One item's lift can be another item's loss of profitability. The ability to forecast these interactions is crucial to the process and to achieving desired merchandising goals and objectives.

Factor #3: The merchandising analytics platform from IBM enables you to balance category and customer loyalty goals, and gain a competitive edge by putting the customer back into customer-centric retailing.

With IBM you can take action on critical insights across the merchandise planning lifecycle. With an understanding of your key, relevant customer segments, you can build better plans and collaborate more effectively with trading partners.

With the benefit of an integrated analytics platform, you can visualize the linkages between category success and customer loyalty. The platform enables you to:

- Recognize, understand and focus on image items for each relevant customer segment
- Track and understand promotion response by customer segment
- Optimize assortments by incorporating the varied needs and preferences of relevant customer segments
- Routinely access customer insights dashboards within the same interface as other core merchandising analytics

Merchandising analytics embeds customer insights to understand brand and item preferences by segment, providing the capability to optimize and further localize assortments based on both a category strategy and defined customer segment strategies.

Factor #4: IBM deliver analytics in context of process.

IBM's merchandising analytics are surfaced within software that manages your key business processes. Nowhere is this more true than for promotions. End-to-End Promotion Management combines several IBM offerings into a comprehensive solution supporting the retail promotion process—from collaborating with suppliers; to managing the internal process across merchandising, marketing and advertising; to leveraging analytics to improve promotional performance; to executing consistent, relevant messages across channels; to tracking performance on the back end.

Analytics should be accessible in the overall planning process. As merchants are in the process of defining the right offers, they need to be able to access analytics, including predictive forecasts, customer analytics and historical performance. To help ensure effective and efficient usage, this should be in the same application.

The system needs to support collaboration within the retailer, across merchandising, marketing and advertising, as well as between the retailer and their trading partners. This streamlines the overall process, providing visibility and helping to eliminate redundant data entry and errors.

Factor #5: IBM's omni-channel merchandising solutions are a part of a comprehensive IBM Commerce suite.

For retailers, merchandising analytics are a component of a larger customer-centric approach which also spans marketing analytics. IBM has one of the broadest and deepest set of marketing and merchandising analytics for retailers available on the market, serving a range of internal and external clients, including merchandising and marketing leaders, digital marketers, ecommerce professionals, and customer relationship marketers.

Factor #6: IBM delivers purpose-built applications with strong record of performance in the market.

IBM has a long track record of enabling retailers to master crucial decision processes, incorporating functionality designed from the DNA up to help make practitioners more successful in their daily decision making. Unlike generic data management packages and ERP platforms there is minimal need to customize, resulting in a shorter deployment time.

The solutions are accessible right out of the box. And, with the science built in, you do not require a team of statisticians to run them—IBM provides those specialized services as part of the core offering.

Factor #7: IBM utilizes the inherent benefits of cloud deployment.

IBM's omni-channel merchandising solutions are delivered via the Cloud. They were built to work that way and, as a result, are rapidly deployed and present a low risk and low maintenance burden on your organization.

The Cloud is more than just a way of delivering the software, it is also the means by which modeling and data integration services are incorporated into the analytics platform.

The benefits of our cloud model are numerous and include:

- **More innovation**—quarterly updates to meet your business needs
- **No customers left behind**—painless migration to updates for users
- **Lower risk**—no hardware, software, or infrastructure to buy
- **Lower administrative burden**—we monitor, administer and upgrade
- **Advanced security features**—with data integrity so essential, we have earned the stringent SAS 70 Type II Compliance designation
- **Near-limitless scalability**—through grid computing and service-oriented architecture that grows as your needs change

Customer-centric merchandising analytics: why it is right to move now

A customer-centric model helps retailers develop, improve and maintain customer relationships. Forward-thinking retailers are discovering a tremendous asset available to them in the form of the digital footprints that their customers leave.

Harnessing that data asset better than your competitors and using it to drive your business enables you to differentiate and win in the market.

There are multiple ways in which customer-centric merchandising analytics present advantages for retail organizations in several areas. These include:

- **Better customer experience.** It makes the retail offering more compatible with the expectations of today's empowered, connected customers by delivering prices, assortments and discounts that make sense, are relevant and have meaningful value. They capture more trips because their customers enjoy a better overall experience.
- **Improved price image.** Retailers who are more customer-centric in pricing actions can turn price transparency into a competitive advantage. Retailers once leery of showrooming are learning to embrace the opportunities presented by connected customers in their stores. From geo location to push promo to instant price match, connected customers provide multiple new ways to engage and win. For many purchase occasions, the "win" happens when the customer selects which retailer to visit. Price image and past success are key influencers of this choice.
- **Operational advantages.** Customer-centric merchandising analytics enable a comprehensive, omni-channel view of pricing that aligns with how your empowered, connected customers evaluate your offerings every day. It enables routine localization of assortments based upon a true read of customer demand and reliable forecasts.

You need a partner that can help you on this journey. That support includes strategic consulting services to help devise and build your customer strategy; transform your organization to execute on that strategy; and build collaborative programs with your manufacturers.

Customer-centric merchandising addresses market realities and customer expectations in today's omni-channel, mobile empowered world.

Price transparency is no longer an option—customers have made it so by using smartphones and social media sharing in their daily lives. Retailers must do more than just live with this uncomfortable reality—the win comes from turning price transparency into a competitive advantage that builds trust and captures more profitable shopping trips.

Financial opportunities are substantial and compelling.

Customer-centric merchandising provides an engine that can drive top-line growth, even in a shrinking economy. Not just by managing margins or penny profits, but by delivering relevant assortments and bolstering a consistent price image that yields greater, higher-margin sales, season after season.

Executing localized assortments and promotions at the right price points has a material impact on retailer performance while meeting customer expectations and building a trusted price image. Over time, excellent responsiveness will de-train customers from bargain hunting and re-establish meaningful perceived value.

Superior forecasts can free up cash by streamlining store-level inventory. This can be a significant driver of financial performance—reducing cost of funds, and allowing cash to move at a greater velocity.

Take advantage of IBM's readiness and reliability.

IBM customer-centric merchandising analytics are proven, reliable systems that cover the bases of price, promotion, markdown and assortment optimization.

You may count on rapid deployment using cloud-based technology, and on an ability to execute effectively on a granular level.

About IBM Commerce

IBM Commerce enables clients to uncover and realize new, sometimes hidden, growth and efficiency opportunities by infusing intelligence and context into key processes across the commerce cycle. Our market leading products and services help organizations orient their entire business around the customer from procurement to supply management, to marketing, merchandising, eCommerce, payments and customer analytics. Differentiated by deep industry expertise and service capabilities, we help our clients create value as they engage with their customers, partners and suppliers. This is the power of [IBM Commerce](#).

For more information

To learn more about IBM's Omni-Channel Merchandising solutions, please contact your IBM representative or IBM Business Partner, or visit the following website: ibm.com/merchandising.



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Software Group
Route 100
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- 1 <http://www.nielsen.com/us/en/insights/news/2013/mobile-majority--u-s--smartphone-ownership-tops-60-.html>
- 2 IBM “From Stretched to Strengthened; Insights from the Global Chief Marketing Study” (2011) www.ibm.com/cmstudy.



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