TECHNOLOGY SPOTLIGHT

User-Driven Omnichannel Analytics

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Adapted from *Perspective: Now That Showrooming Has Wall Street's Attention, It's Time for the Omnichannel Store* by Greg Girard, IDC #GRI234981

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Omnichannel retail, a term IDC Retail Insights coined, characterizes a near-term future state of business and IT competencies that have a singular and thoroughgoing effect on customer experience with a retail brand, namely engagement that leads to the second purchase ahead. The second purchase ahead is the basis for transforming a transaction into a relationship. A new set of rules define these competencies. They span the poles of retail success — supply chain mastery, where optimization now holds sway, and customer intimacy, where orchestration is the new normal. The imperatives of omnichannel retail establish a higher bar for analytics to inform real-time and ad hoc offline decisions with insight that is drawn from data dispersed across any number of systems and presented in the personalized decision-making style and context of the user. This paper examines self-service omnichannel analytics and looks at the role of QlikView in this strategically important discipline.

Introduction

The basic processes of retail — acquiring, retaining, and growing customers and sourcing, staging, and selling products — are as old as commerce itself. While the core retail concerns of merchandising, marketing, fulfillment, and selling have not changed, everything around them has:

- Intensification of competitive industry forces and prolonged slow economic recovery

- Channels of interaction that have multiplied to include in-person and online interactions — the raw materials of omnichannel customer engagement

- Customer expectations changed by the best practices of new or reinvented innovative consumer-driven companies within and beyond retail

- Media, vendor, and industry attention on big data — putting a broader set of business analytics initiatives on the agenda of more senior executives

- Ubiquitous mobile and socially connected lifestyle compounded by the shift in advertising spending to digital and, increasingly, mobile

- Convergence of enterprise and personal information technologies supported by mobility, social business, analytics, and cloud services

These are just a few examples of the new factors facing retailers as they seek to make sense of the deluge of data, uncover insights that can drive better decisions, and empower analysts, customer-facing employees, and customers themselves with the right information at the right time — a variable that can mean everything from a specific time of day and day with a specific weather outlook to the right location and the right mood of the customer.

Omnichannel Retail Challenges for Business Analytics

In 2014 and beyond, IDC Retail Insights sees two overarching forces driving requirements for better omnichannel analytical insight: the reach for relationship, relevance, and reciprocity for customer intimacy and the search for scale, speed, and scope for supply chain mastery (see Figure 1). The two dimensions converge in product assortment localization, presentation, and curation and in the contextualization, continuity, and consistency of personal interactions and transactions. Omnichannel analytics can enable a retailer to push the frontier of business opportunities with more agile and responsive strategic, tactical, and operational decisions.

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New Rules of Retail
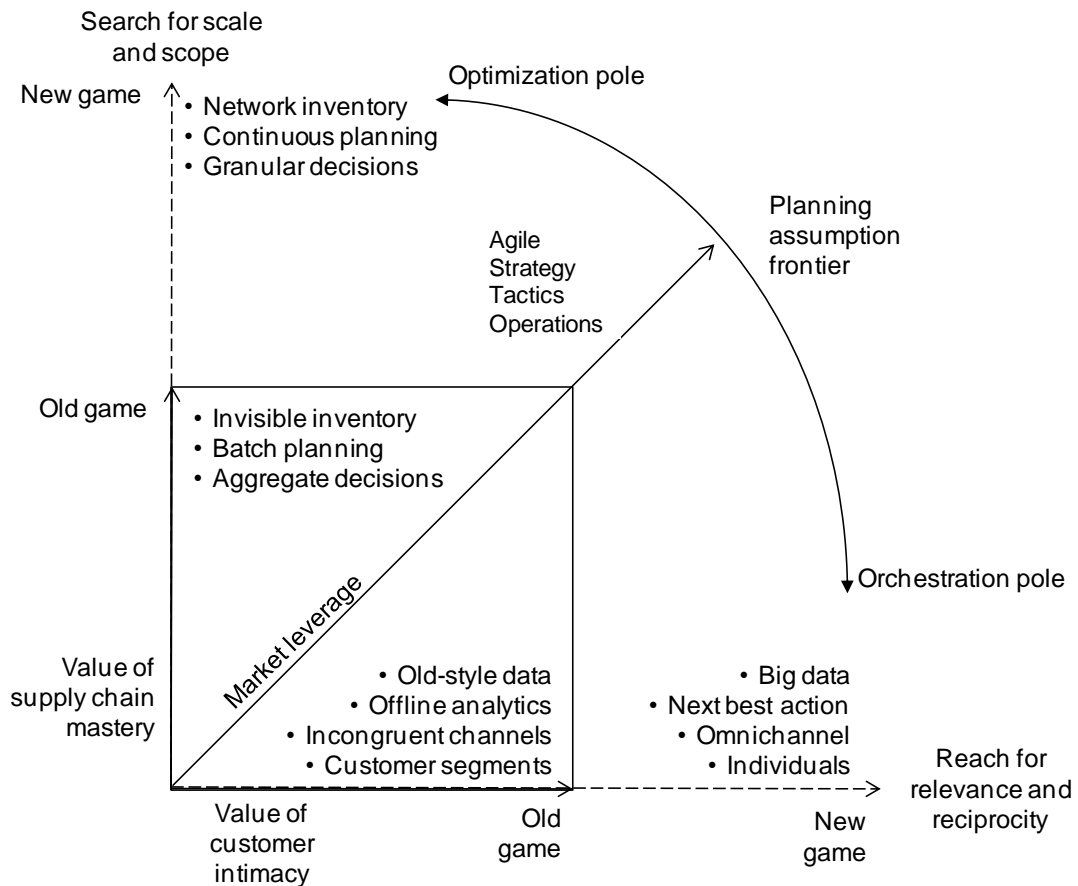
Source: IDC Retail Insights, 2014

Omnichannel Process Insight

Competing successfully under the new rules of retail requires insight across the enterprise. Within that broad scope, a few processes stand out as bet-the-business capabilities that move performance metrics the most:

- Marketing and customer insight from campaign management to market basket analytics

- Merchandising and buying across planning to pricing, markdowns, and contribution

- Store and channel performance — customer service, loss prevention, store development

- Fulfillment from vendor management to in-stock and available-to-ship service levels

Omnichannel analytics can help retailers improve each of these processes. Recent IDC research indicates that concerns related to these processes make up retailers' six highest priorities in big data and analytics:

- Pricing strategies and programs

- Customer acquisition and retention

- Market and competitive intelligence

- Customer service and support

- Supply chain management and logistics

- Product and service improvement and innovation

Benefits

The Trifecta of New KPIs, Analytics, and Data

Recent IDC research looked at the impact of using new metrics (e.g., net promoter score), new analytic techniques (e.g., visualization or data discovery), and new data (e.g., clickstream data, streaming video, RFID) in various combinations. Organizations that have adopted all three dimensions of "new" are more likely to see their analytics projects deliver quantified benefits that exceed expectations. A full 26% of this group reported that their analytics projects exceeded expectations, while 23% of those using new analytic techniques and new data reported similar success. In contrast, only 6% of organizations that push ahead without new metrics, analytics, or data reported achieving quantified benefits that exceeded expectations. Barring the resources, time, or ability to do all three, the next best option is to focus on new analytic techniques and new data. Interestingly, the use of new analytic techniques was the only constant across the three groups, and among the three populations adopting just one of the three capabilities, those adopting new analytic techniques were most likely to achieve quantified results in excess of expectations.

The Value of Exploration and Discovery: It's Rarely About the First Question

Toyota Motor Corporation is well known for the quality of its cars. It's less well known for being an early adopter of techniques developed by W. Edwards Deming and a pioneer in the total quality management (TQM) he championed. One technique unique to Toyota's TQM methods is the Five Why method of root cause analysis for discovering improvement opportunities. Simply stated, Toyota product and process engineers are trained to drill through five levels of causality to discover an optimal improvement opportunity. Cars and their multitier manufacturing processes are complex. In their own way, many aspects of retail share similar dimensions of complexity — especially those supporting the processes attending supply chain mastery and customer intimacy.

An analytics capability that can facilitate the quick and comprehensive exploration of "why" questions really shines in discovering optimal improvement opportunities.

A number of leading retailers have implemented quality management programs akin to the classic Deming-based TQM approach followed at Toyota. Tesco, the third largest retailer in the world by revenue, uses TQM widely across its operating units and business processes. Managers at various levels of responsibility are schooled in systematic process improvement tools and techniques. Tesco quality improvement teams rely on business intelligence tools to measure process performance, spot anomalies, identify root causes, and track key metrics after addressing root causes.

Simple, Beautiful Dashboards: The Key to Productive Insight

As illustrated in Figure 2, the vast majority of "why" questions traverse data, process, and functional dimensions of the retail enterprise. Quick and comprehensive exploration of root causes to find improvement opportunities requires instant association of data resident in any number of operational systems, data marts, business warehouse, partners' data stores, and external data stores. Furthermore, data stores span functional and process silos across the business (e.g., store operations, ecommerce, merchandising, supply chain, vendor management, marketing, and finance).

Figure 2

Cascading "Why" Questions
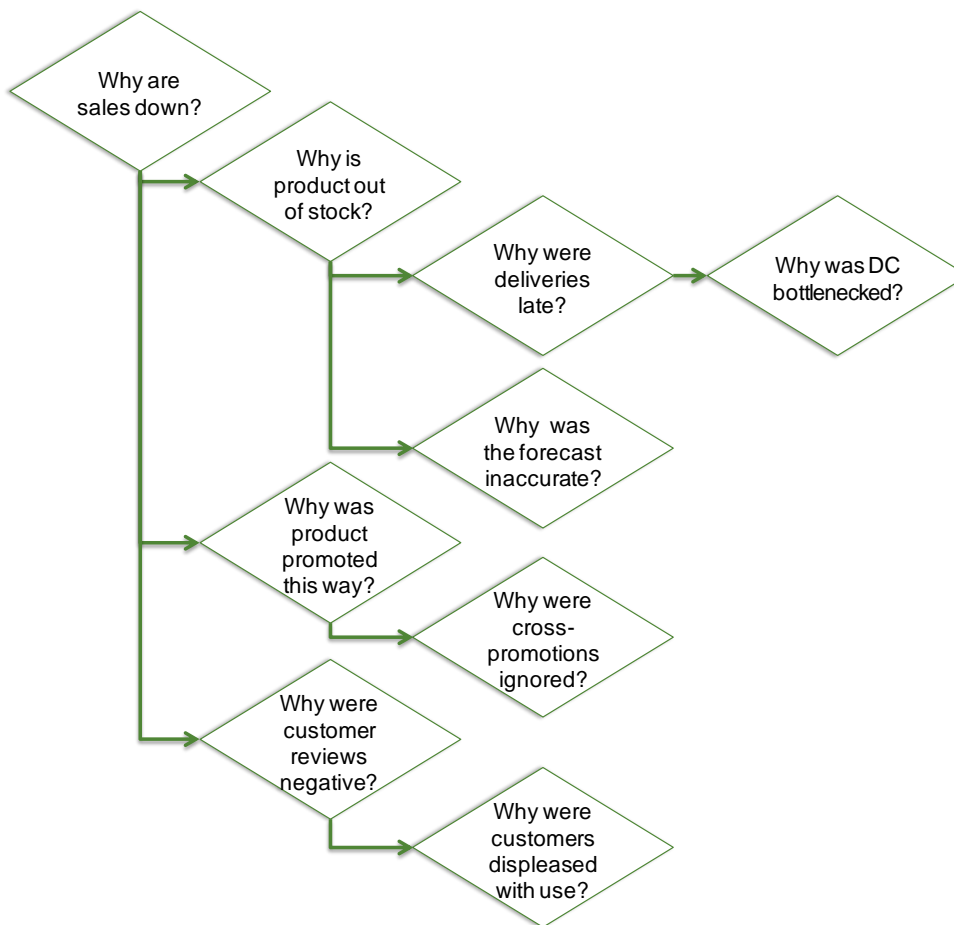
Source: IDC Retail Insights, 2014

Simple should be the motif of managerial dashboards, but the devilish details of building effectively simple dashboards to meet the needs of merchants, marketers, and managers in stores, logistics, and customer service can be befuddling.

But as Thelonious Monk, the American jazz pianist and composer, once said, "Simple ain't easy." While Monk was not versed in retail, systems design, or managerial science, his observation holds true in this context. Simplicity, like beauty, lies in the eye of the beholder.

Trends

Business Analytics Investment Drivers in Retail

Retailers invest more than $2.5 billion annually in business analytics software and services, with the pace of that investment increasing by nearly 10% yearly. These investments span data warehouse platform software, performance management and analytic applications, and business intelligence (BI) and analytic tools.

The most evident and important trends affecting retailers' investments in and utilization of business analytics include:

- Expectation of analytics presented at the point and pace and in the context of decision making as required by the process and as preferred by the individual decision maker

- Exponential increases in the volumes of data available for analysis and required for granular, root cause–oriented, fact-based decision making at the scale and pace of retail today

- Mounting evidence of the value of analytics and data-driven decision making for producing superior outcomes across industries

- Vastly improved price/performance parameters for acquiring, managing, and analyzing large volumes of multistructured data

- Memory-based business analytics — improved query performance over disk-based systems that has reset user expectations about access to and interactivity with enterprise data

- A shortage of highly skilled IT and analytics power users engendered by growing mass-market demand for business analytics solution

- IT and line-of-business expectation that the cost of reusing information approach zero through the assembly and remixing of information widgets by knowledge workers

- A growing cadre of self-reliant, analytically literate, and self-supporting line-of-business users

Deployment, Objectives, and Benefits of Business Analytics Investments

Analytics initiatives among retailers are gaining pace. While just 11% of retailers have analytics in production in business units, in departments, or across the enterprise, the same number are running pilots or proof-of-concept projects, and 21% are researching or considering analytics initiatives. Retailers are training their analytics efforts on product and service enhancement, operational improvements, revenue generation, customer loyalty, and risk mitigation.

Our research also reveals that retailers focus omnichannel analytics on key business objectives. The top four drivers for big data and analytics, for example, relate to customers, pricing, market and competitive intelligence, and customer service and support — all pursued by at least 40% of retailers with big data and analytics initiatives under way.

Considering Qlik

About Qlik

With 1,700 employees and headquartered in Radnor, Pennsylvania, Qlik was founded in Sweden in 1993 and now serves 30,000 customers, most through a network of 1,500 partners, in more than 100 countries. Qlik reported $388.5 million in revenue in 2012, an increase of 21% over 2011 (26% on a constant currency basis), with 62% of its license and first-year maintenance coming from existing customers. The company's partner channel contributed 54% of 2012 license and first-year maintenance revenue. Investments in customer-facing aspects of the business in 2011 led to a 40% increase in employees — to 1,425 — at year-end 2012.

QlikView is a mature software platform that provides a self-service environment for line-of-business managers to explore their company's data assets with analytical and visualization tools — user-driven business intelligence. The QlikView user experience is powered by an in-memory engine that maintains associations in data and calculates aggregations rapidly, as needed. The software platform is designed to give customers significant improvements in usability, flexibility, and performance at lower costs compared with traditional BI solutions.

Qlik describes its approach to business intelligence as Natural Analytics, something akin to the way our human curiosity searches and processes information, reveals insights, and enables decisions. Natural Analytics consists of three main capabilities: association and comparison — the intuitive use of color to show associative patterns among data elements; collaboration and dialogs — a social business approach to data exploration and decision paths; and persuasion and action — interactive exploration of data supporting a point of view and its counterpoint as decisions are considered.

Four of the five largest retailers by worldwide sales run QlikView in one part of their business or another serving the functional needs of local operating units. The company counts more than 1,100 retailers as customers. QlikView solutions are deployed across all major aspects of the retail enterprise, with the most common and highest-value applications found in store operations, merchandise, omnichannel, ecommerce, marketing, and supply chain.

Challenges

With revenue under $400 million, Qlik ranks 11th worldwide in terms of business analytics software revenue, which IDC sizes at $35 billion, giving Qlik a 1% market share. (This measurement ignores the company's larger presence in the data discovery segment of the market.) The company ranks among the top 5 fastest-growing firms in this market — a testament to Qlik's ability to do the right things well. Qlik is in the right space at the right time — visualization, in-memory analytics, user-driven business intelligence, and big data connectors — just as retailers, among many others, are discovering the importance of data-driven decision making.

As retailers evaluate Qlik as a provider of business intelligence software, they may consider the company's breadth of business across more than 100 countries and more than 20 vertical industries as a business risk. However, Qlik has its distributor network in place to manage the geographic risk.

In IDC Retail Insights' view, Qlik's Customer Success Framework is an effort to manage the vertical industry risk by leveraging the very diversity that poses the risk into a source of innovation and narrow industry solutions. The approach is a proven one, successfully pursued by companies of Qlik's size or smaller. Community governance and software curation in QlikMarket are the linchpins of that strategy's success. Those efforts are nascent and bear watching. In the end though, however well Qlik's ecosystem strategy performs, retailers need to see Qlik continue to enhance its own retail industry and process assets in terms of talent, services, and software.

Conclusion

Given the speed, scale, and scope with which omnichannel retail operates today, independent and team-based decision makers need fast, comprehensive, and actionable insight to make better decisions. Make the wrong call or a suboptimal decision and the results will play out in the hands of powerful, knowledgeable, value-seeking shoppers. Nimble omnichannel competitors stand ready to take advantage.

Retail is a complex business, and while issues will surface in one dimension or another — for example, a product being out of stock — underlying causes of most issues, something especially true in "bet the business" issues, are multidimensional in nature. Analytical insight guiding decision makers must be equally multidimensional as well — with decision makers enabled to guide themselves through relevant dimensions quickly and easily to evaluate their options and make the right decisions.

IDC Retail Insights' research demonstrates clearly that retailers that are most adroit with new KPIs, new analytic techniques, and new data sources have the advantage. Retail investment in business analytics is picking up, and leading retailers are focused on enhancing their capabilities to take full advantage of these investments.