

RETAIL IQ



INTELLIGENT PRICING STRATEGIES: AVOIDING THE TREACHEROUS RACE TO THE BOTTOM

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Maturity Ladder:

Intelligent Pricing

The *RIS News Retail IQ Report Maturity Ladder* is a diagnostic measurement tool for a retailer's state of technology advancement in a specific category. There are four key phases: **1. Basic** – minimal capabilities, **2. Intermediate** – mostly basic with some advanced capabilities, **3. Advanced** – mostly advanced capabilities with some limitations, and **4. State-of-the-Art** – comprehensive capabilities are fully integrated and up to date. Note that it is possible to be on more than one step of the ladder simultaneously as specific technology components and processes are upgraded in phases.

03

4. STATE-OF-THE-ART

- Retailers use sophisticated analytics tools to understand the relationship between customers and price elasticity, as well as the correlation between price and product relevancy.
- Brands use predictive analytics to determine different shoppers' levels of price sensitivity and elasticity across all channels.
- Retailers adopt artificial-intelligence-based machine learning tools that enable computers to observe and learn from new data and embedded patterns.
- Using cognitive learning solutions, retailers finally have the processing power necessary to weed through increasing volumes of big data.
- Retailers use the solution to gain a 360-degree view of the customer — the foundation needed to develop more targeted and profitable pricing and promotional programs.

3. ADVANCED

- Brands transition legacy-based solutions to more advanced price optimization tools that can make more informed, competitive pricing decisions.
- Retailers use the tools to harness historical data, as well as customer household penetration, purchase frequency and even product sizes and composition.
- Companies use these criteria to establish new key performance indicators, such as what is their fast and slow-selling merchandise, what product ends up in physical and virtual baskets, and what items are truly important to customers.

02

2. INTERMEDIATE

- Retailers expand omnichannel operations by bringing digital touch points down to store-level — an effort that drives higher volumes of customer data into data warehouses.
- Retailers firm up pricing strategies by analyzing historical customer shopping patterns and point-of-sale unit sales data.
- Brands adopt web-based price scrapers in an effort to understand competitors' online pricing strategies. These tools don't provide insight into why competitors price merchandise at specific thresholds.
- Retailers apply existing business intelligence tools to big data to create dynamic pricing models.

01

1. BASIC

- Omnichannel retailing platforms change the way consumers search for merchandise and compare prices between competing retailers.
- Online search engines foster "showrooming," forcing retailers to re-evaluate their pricing strategies if they want to remain competitive.
- Retailers rely on managers' gut instinct and historical data when making pricing decisions.
- Retailers want to improve pricing efforts, but legacy systems keep brands in the dark regarding up-to-the-minute competitor pricing and consumer expectations.



A successful pricing strategy is more than just having the lowest price — it requires the comprehensive understanding and application of a product’s price elasticity. However, this commands insight into consumer demand, as well as competitor pricing. By leveraging sophisticated pricing solutions from automated analytical software to artificial intelligence, retailers can more accurately and competitively price products — a move that can help retailers reclaim valuable margins.

It is no secret that the omnichannel retailing experience has created a new type of shopper. In this digitally-driven landscape, search engines are becoming a shopper’s best friend when it comes to finding the best price on merchandise — whether they are browsing online or right on the sales floor. This all-knowing, all-encompassing shopping tool can access the entire competitive pricing landscape in mere seconds, enabling shoppers to instantly make strategic purchase decisions.

This digital shopping model is so prevalent that 50% of U.S. retail sales are digitally-influenced, and price comparisons are the top use case for most product categories, according to “The New Digital Divide,” a report from Deloitte.

In addition to trying to find their footing within this digital transition, many brands are feeling pressure stemming from more agile pure plays, most notably Amazon. The online superstore has built its reputation on mining customer data and changing thousands of prices across innumerable categories and products on a daily basis, and has become an expert at reacting to competitor prices in as little as one hour, according to “Pricing in Retail: Setting Strategy,” an article from McKinsey & Company.

Why is the online behemoth so agile? Unlike its traditional competitors that rely on more rigid, legacy-based systems, Amazon operates a home-grown, distributed, decentralized service oriented architecture (SOA). A proprietary database catalogs all product data, and collects data among a variety of sources, including customer databases, web affiliates, third-party sellers, retailers, fulfillment partners, public data sources and credit card companies, among other entities.

Meanwhile, proprietary algorithms track business performance against a substantial list of measurable goals. This, coupled with a fixed-cost



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Source: Deloitte, “The New Digital Divide”



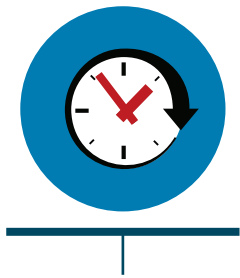
structure much lower than traditional brick-and-mortar competitors, enables the company to operate at approximately a 15% price markup, compared to an average markup of 65% to 80% among conventional retailers, according to “The Retail Transformation: Cultivating Choice, Experience and Trust,” a report from Deloitte Center for the Edge.

While many retailers are eager to keep up the pace with Amazon and other nimble competitors, their pricing strategies are far from competitive. Too many continue to offer the lowest prices via promotions or worse, deep markdowns, in hopes of driving loyalty. These non-strategic efforts are catalysts for retailers changing prices too late in the game (41%), out-pricing themselves among competition (41%), or simply marking down merchandise way too low (26%), according to “Pricing with Confidence,” a custom research report from *RIS News*.

Another stumbling block is retailers’ inability to leave behind archaic practices and supporting legacy systems. The omnichannel business model is speeding up the pace of retail, and rigid home grown solutions will not keep up with customer demand, or the ability to present promotions and pricing as a means to better service them. As the industry continues to face these rapid changes — and add solutions to drive the consumer’s ability to shop anywhere at any time — efforts have eclipsed the abilities of these legacy tools, rendering them obsolete, as summarized in “Top 10 Merchandise Planning Priorities of 2016,” a report from Boston Retail Partners.

To avoid these competitive pressures, some retailers are in search of a “quick fix” to beat the competition. One go-to tool in this shaky strategy is web-based price scrapers, a solution designed to extract data from web pages. While gleaned details do give insight into competitor pricing, and how to more strategically price merchandise on the fly, this sole practice is not strong — or reliable — enough to gain profitability. It lacks the intelligence of why a competitor’s merchandise is priced accordingly — or why another retailer should change theirs.

Yes, these efforts may help brands drive incremental lift, but not for the long-term. Altering prices without an understanding as to why, may increase sales, but often will not lead to profitability. Worse, these efforts only deteriorate standards in an effort to keep a foothold in the market and attract shoppers.



1 HOUR
Time it takes
Amazon to react to
competitor prices.

Source: McKinsey & Company, “Pricing in Retail: Setting Strategy”

**DARIUS JAKUBIK**VP, Sales
Advanced Pricing Logic, Inc.

“A retail company’s success often relies on the ability of the pricing manager to understand KPIs and internal SKU contribution value from end-to-end within the organization.”



Advanced Pricing Logic creates robust price optimization and management software designed for today’s hyper-competitive retail environments. Our powerful, all-in-one solution provides companies with the actionable data needed to infuse their corporate strategies and price for maximum impact.
www.advancedpricinglogic.com

The Impact of Intelligent Pricing

Q: What new trends are shaping pricing decisions in the omnichannel landscape?

DARIUS JAKUBIK: Constant web connectivity is challenging for retailers as the growing population of tech savvy buyer’s shop for goods and services anywhere, anytime. For the first time in the history of commerce, omnichannel puts the consumer squarely in the driver’s seat. This creates pressure for retailers and distributors to be prepared for constant consumer demand. By employing customer-centric solutions that aggregate buying behavior directly within the analytic framework of price setting, companies will help ensure maximum profit, while gaining and retaining customer loyalty across all channels.

Q: What challenges do price scraping solutions cause in retailers’ pricing strategies?

JAKUBIK: By definition, scraping means “a small amount of something that has been obtained by scraping it from a surface.” Although identifying a competitor’s price is beneficial, it’s only one dimension of a much more complex problem. Retailers practicing a mature pricing model understand that price isn’t the only factor in the buying decision. The real challenge is to dig deeper and analyze the detailed data beneath the surface revealing the true value of your inventory. Competitive scraping has its place in the big picture of pricing, but without the combination of a true data analytic solution, leaves a lot of valuable intelligence to be desired.

Q: What solutions do retailers need to make “smarter” pricing decisions?

JAKUBIK: A retail company’s success often relies on the ability of the pricing manager to understand KPIs and internal SKU contribution value from end-to-end within the organization. This means having the tools to discover all there is to know about your enterprise, giving you the power to be successful for the long haul. Pricing solutions come in various forms and understanding their capabilities is a key component to optimize data aimed at increasing the bottom line. As mentioned previously, scraping competitive pricing offers only a single portion of many metrics used in pricing. When competitive price information is combined with deep analytics that mine the trends, movement, and profitability of your inventory and sales, the vision of the complete pricing picture will come into view.

Q: Why is the adoption of machine learning crucial for retailers in the quest for more intelligent pricing decisions?

JAKUBIK: The answer lies in the enormous amount of raw data and the ability to use its contents to your advantage. Today’s solution intelligence goes way beyond what the teams of analysts used to be able to predict. By applying complex algorithms and combining them with clustering techniques, retailers can identify behavior and buying patterns in future forecasts. Taking advantage of today’s technology means being able to rapidly apply a myriad of mathematical factors when optimizing prices for single and multiple SKUs across dozens of categories. Charting and tracking pricing strategy performance over time allows the machines to consider and implement both successes and failures going forward with evolving strategies. In 2016, the name of the game is leveraging robust, intelligent pricing solutions that maximize future profit utilizing data from the past.



Traditional Retailers Can Compete if They Leverage Their Data

As the marketplace becomes increasingly saturated, industry leaders have carved a niche by offering quality merchandise and excellent service at the most reasonable prices. This doesn't always mean featuring the lowest price, or donning "quick fixes" to win the race. To be successful, companies must discover a product's price elasticity and apply it correctly.

This requires having more intelligence to level the playing field and capture profits. It is such an important component to their pricing strategy that more than a quarter (28%) of retailers define consumer insights and predictive and advanced data analytics as a top or strategic investment, according to "Protect Your Retail Turf: Assortment Optimization Strategies," a report from EKN Research.

At the core of this transition is historical data. Conventional retailers' longevity makes them data rich — even more so than their nimble competitors. And as they continue to add more digital customer-facing solutions, from online stores, mobile apps and in-store proprietary devices, the volume of incoming customer information — including correlations between purchase habits in relation to price relevancy — continues to swell.

Specifically, by 2020, the amount of high-value big data worth analyzing will double, according to "IDC FutureScape: Worldwide Big Data and Analytics 2016 Predictions," a report from International Data Corp. (IDC).

"Big data and analytics solutions present a potential for significant business value," Dan Vesset, IDC's group vice president, business analytics and big data, said in the report. "Organizations that are able to take advantage of the most important trends will be prepared to reap new benefits and overcome challenges," including those related to creating a successful pricing strategy.

Turning Insight Into Action

As retailers expand their reach via new digital customer-facing touch points, the time has come to retire legacy systems and managers' gut instincts — two factors that can only deliver basic understandings of consumer price sensitivity. To truly tap big data, retailers must apply

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Amazon's average price
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Source: Deloitte Center for the Edge, "The Retail Transformation: Cultivating Choice, Experience and Trust"



SEAN DANGLER

EVP, pricing and promotions,
dunnhumby

Customer Focused Price Perception

Q: What trends are impacting how retailers are making intelligent pricing decisions in a digitally-influenced marketplace?

SEAN DANGLER: Consumers access to anytime, real-time pricing and product data is transforming retail pricing decisions. The historical, methodical pricing process that retailing has used for decades has been overthrown as irrelevant by consumers. This is forcing retailers to better understand all the drivers of price perception, and their mutual influence on each other. Things such as base pricing, promotions, personalized offers, breadth of assortment, store services, and others.

Q: What is the value of merging data and science to make better pricing decisions and still drive long-term customer loyalty?

DANGLER: The amount of data a retailer has at their fingertips is immense and growing daily. Making sense of that data is where science comes in. Adding customer metrics into the mix, with customer tuned science allows a retailer to understand the nuances of different customers and different customer groups, and bring the customer's voice into the decision making process. This provides a retailer the ability to shift from a product focus to a customer focus with their pricing decisions, and in turn build long-term customer loyalty.

Q: Why has it become so important to merge intricate customer data, such as shopping patterns, social network interactions, even local weather patterns, with traditional purchase and demographics information as a basis for pricing decisions?

DANGLER: Having the "lowest" price on an item is no guarantee of success. Customer price and "value" perception is influenced by so many other additional factors. Making sense of this intricate customer data is an immense and difficult challenge, but allows a retailer to begin to understand the "why" behind the buy. For example, understanding how important an item is to a shopper, it's relation to driving the trip, and what other purchases are driven by that item, allow you to make a more complete decision around pricing and assortments. The past decade was spent on improving efficiencies in operations and supply chains. Today's successful retailer is determined by their ability to consistently understand and then deliver value to their shoppers, as defined by their shoppers.

Q: Why do retailers still struggle with this evolution of data analysis?

DANGLER: Many retailers are still burdened by legacy systems that calculate legacy metrics, and thus treat all customers the same. Moving an organization from a product focus to a customer focus necessitates the need for customer metrics that bring the customer's voice consistently into decision making, across the organization. And by integrating these metrics into merchandising production systems such as pricing and ad planning, versus having them in standalone reporting systems, an organization is better able to consistently plan, produce and execute pricing and promotional plans that are aligned with what's important to their shoppers.

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dunnhumby is the world's leading customer science company. We use data and science to understand customers, then apply that insight to create personalized experiences that build lasting emotional connections with retailers and brands. It's a strategy that proves when companies know and treat their customers better than the competition, they earn more than their loyalty — they earn a competitive advantage.
www.dunnhumby.com



A lacking pricing strategy is a catalyst for retailers to: change prices too late in the game **41%**, out-price themselves among competition **41%**, or mark down merchandise way too low **26%**.

Source: *RIS News*, "Pricing with Confidence"

price optimization tools if they want to uncover how specific products are selling, how well they are moving in each channel, how long they are sitting in the warehouse or store shelves, and why.

Based on robust algorithms, price optimization solutions reveal how customers respond to different prices across different channels, as well as which specific prices can maximize operating profit. Armed with the solution, retailers are ready to begin their competitive pricing journey. Their first priority: understanding the importance of price among their shopper base.

Love's Travel Stops & Country Stores' overall goal is to become the one-stop source for its customers by offering the right amenities and assortments — local and regional — to drive a better experience. This includes having the optimal price that will attract and retain on-the-go shoppers. By adding a price optimization solution, the privately-owned convenience store chain can provide customer-centric pricing in the 370 stores it operates across 40 states.

"We are excited to standardize on a solution that provides deep insight into key customer demand signals," said Jay Dempsey, merchandising technology manager, Love's.

"Using 'what-if' scenario planning, and blending real-time and historical price and promotions data, we will gain insight into what products we should carry nationally vs. regionally based on customers' shopping behavior," he said. "With more targeted, systematic pricing and promotions, we can be more competitive, increase customer loyalty, scale for growth, and protect profitability."

Price optimization is becoming such a priority that more than a third (37%) of retailers said they will be investing in the software within 18 months; another 11% will invest by the end of the year, and 26% within 18 months, according to *RIS News*' report, "Pricing with Confidence."

Once price optimization is in place, retailers can also stay abreast of price and product relevancy across specific stores, store zones and regions. Sally Beauty Supply is using an optimization tool that can quickly asses the most profitable pricing opportunities across its business.

Carrying more than 7,000 beauty products across more than 3,600



Retailers that define consumer insights and predictive and advanced data analytics as a top or strategic investment.

Source: EKN Research, "Protect Your Retail Turf: Assortment Optimization Strategies"

stores in North and South America and Europe, Sally Beauty generates annual revenues of \$2.3 billion. By applying price optimization across all product categories, the solution delivers pricing recommendations that can translate into more accurate pricing decisions.

"The solution incorporates detailed product and category data, and shopper insights, helping us make better pricing decisions that drive enhanced revenues and margins," said Linda Voracek, Sally Beauty Supply's group vice president of merchandising.

Keeping Tabs on Key Metrics

To understand the value that optimization tools provide, retailers need to implement metrics that can measure the value of their pricing decisions and their impact on profitability. Traditionally, retailers relied on POS data to understand profitability derived from sales units. In an omnichannel world however, this is table stakes.

The next phase of measurement is to add new key performance indicators (KPIs), such as customer household penetration, purchase frequency and even sizes and composition. When applying these rules across channels, retailers gain a better understanding of fast- and slow-selling merchandise, what product ends up in physical and virtual baskets, and what items are truly important to their customers.

Consider Sonae. Called the largest retailer in Portugal, Sonae operates a mix of multi-format food and non-food chains, with more than 1,425 locations under a variety of banners. As the company expands into new geographic regions such as Spain, the U.S., Africa, and the Middle East, Sonae will expand its use price optimization solution across its non-food formats, including its growing sports equipment and clothing retail chain.

This expansion requires the company to measure a new list of business metrics, including competitor pricing rules, brand and size-parity rules, maximum/minimum price differentials, and supplier cost changes. These metrics enable the company to improve pricing logic and consistency on store shelves, which strengthens overall customer perception of prices and brand value and helps the company tailor prices by store type and geography, which maximizes its relevance to customers.



“Competitive pricing is highly transparent to customers today, so it’s important to Sonae’s corporate and brand strategy that shoppers know us as the overall low price leader,” said Goncalo Peixoto Fernandes, the retailer’s commercial director for IT. “The solution gives category managers and buyers the visibility and control needed to maintain and fine tune our pricing, so that we continue to win in our markets, and on the products that matter most to our shoppers.”

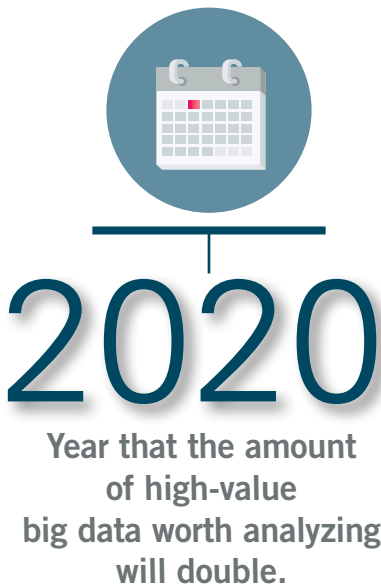
Take Capabilities to the Next Level With Machine Learning

As savvy as data-driven solutions are, many can’t keep up with the increasing volume of incoming data. Eager to take advantage of the nuggets hidden in this information at the lowest, most granular levels possible, retailers are focusing on an evolving reporting option designed to optimize big data into relevant business information. This new option is called machine learning.

Designed with artificial intelligence, the process uses robust algorithms to observe and learn from new data and embedded patterns. Machine learning is creating such a stir industry-wide that by 2020, 50% of all business analytics software will include prescriptive analytics built on cognitive computing functionality, and cognitive services will be embedded in new apps. Further, these cognitive solutions will provide U.S. enterprises more than \$60 billion in annual savings by 2020, according to IDC’s report, “IDC FutureScape: Worldwide Big Data & Analytics 2016 Predictions.”

Macy’s is wasting no time, and already adopting machine learning to support its evolution from a regional brand into a national one. Leveraging its My Macy’s initiative, which embeds a customer-centric orientation into every aspect of the company’s operations, the chain is eager to drive more personalization. However, this requires a better handle on data. A cognitive learning platform will help the chain customize content arbitration, and create more granular pricing and market strategies to increase margin.

“Aggregating our customer data and achieving the 360-degree view of the customer will put macys.com at a starting point for customer-centric innovation,” said Darren Stoll, macys.com’s group vice president of mar-



Source: International Data Corp., “IDC FutureScape: Worldwide Big Data and Analytics 2016 Predictions”



\$60
BILLION

**Annual savings that
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keting operations and analytics. "Once we achieve that view, we'll be in a position to operationalize it in a way that personalizes and enriches the customer experience."

Pricing is on this agenda. Armed with a machine-learning platform, the retailer will use real-time site information at the customer level to develop more targeted — and ultimately more profitable — pricing and promotional programs. Among the expected results is an increase in sales and revenue per customer due to closer engagement, stronger retention and targeted promotions.

Conclusion

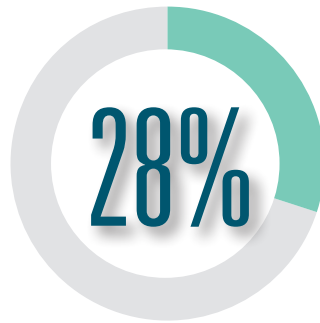
Search engines have become the consumer's favorite shopping tool, especially when it comes to price comparison shopping, and retailers need comprehensive pricing insight to stay competitive. This requires up-to-the-minute visibility into competitors' pricing, and the ability to change prices in real-time across the enterprise as a means of outpacing rivals.

By leveraging sophisticated pricing solutions based on business intelligence and evolving machine learning tools, retailers can more accurately and competitively price products — a move that can help retailers regain valuable margins.



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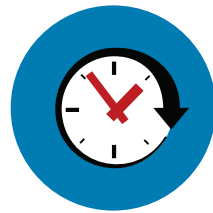
Source: EKN Research, "Protect Your Retail Turf: Assortment Optimization Strategies"



2020

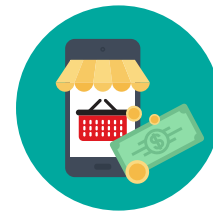
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BILLION

Annual savings that U.S enterprises will experience through cognitive solutions.

Source: International Data Corp., "IDC FutureScape: Worldwide Big Data & Analytics 2016 Predictions"