

Knowledge Brief

Quadrant Knowledge Solutions

Blue Yonder is Leader in SPARK Matrix: Intelligent Retail Pricing & Promotion Optimization (IRP&PO), 2021



2021
SPARK MATRIX
LEADER

Intelligent Retail Pricing and
Promotion Optimization,
2021

An Excerpt from Quadrant Knowledge Solutions
"SPARK Matrix: Intelligent Retail Pricing & Promotion Optimization, 2021"

Blue Yonder is Leader in SPARK Matrix: Intelligent Retail Pricing & Promotion Optimization (IRP&PO), 2021

Intelligent retail pricing and promotion optimization platforms offer various lifecycle pricing solutions that enable retailers to manage every aspect of pricing and promotions in real-time. The platform leverages AI/ML technologies to offer intelligent insights and analytics based on several factors, including demand forecast, local conditions, competition, season and brand loyalty, and others, to facilitate intelligent pricing and promotion decisions across the product lifecycle. It enables retailers to optimize pricing throughout the entire product lifecycle and across all channels and helps them meet their business objectives by increasing profit margins, maintaining price consistency across multiple channels, and reducing excess stock and waste. The platform offers comprehensive AI-powered capabilities for dynamic pricing, managing prices across all channels, and improving markdown pricing. Retail pricing and promotion optimization platforms offer capabilities for initial price optimization, regular price optimization, promotion price optimization, markdown price optimization, and contextualized real-time pricing. With advanced AI and ML algorithms, these platforms can recognize the various influencing factors such as demand, sales, season, and more and offer real-time pricing suggestions.

Price optimization is a strategy that global organizations and brand owners have implemented based on various factors, including competitive pricing, margin-based pricing, price elasticity, and more. However, with increasing changes in consumer behaviour and demand, where customers expect brand owners to anticipate their requirements and fulfil expectations, retailers need a more holistic pricing solution to formulate and implement effective price optimization strategies throughout the entire product lifecycle. Retailers are also increasingly looking at supporting the omnichannel environment to monitor customer behaviour at every stage of their journey and optimize their pricing strategies to drive increased profits and reduce waste.

Towards this end, AI-powered price optimization solutions deliver actionable insights accounting for several factors, including seasonality, prize zones, store types, fulfilment methods, different sizes, inventory availability, along with demand forecast, price elasticity of demand, competitive pricing, and more. These insights enable retailers to gain a comprehensive view of the performance of various pricing strategies, forecast customer demand and allow the retailers to select and set optimum prices for their products

accurately. A well-executed price optimization process helps retailers understand how customers are responding to their product prices and enable them to achieve organizational goals of improving sales, profitability, growth, customer engagement, and brand loyalty.

Retailers are also looking at adopting an end-to-end approach to formulate price optimizations strategies, gain advanced customer insights, and drive customer engagements in an omnichannel environment. Retailers are increasingly adopting intelligent retail pricing and optimization software for price optimization, regular price optimization, promotion price optimization, markdown price optimization, and contextualized real-time pricing. Retailers leverage an intelligent price optimization platform that can offer accurate insights accounting for a wide range of influencing factors such as competition, weather, season warehouse costs, operating costs, etc., and suggest reliable insights. The platform helps retailers formulate their price optimization strategies quickly and efficiently. It allows retailers to gauge the demand and align the product's initial prices, discounts, and promotions with organizational goals. A retail price and promotion optimization platform can provide a reliable price optimization solution that can anticipate customer demands and recommend strategies to set up prices accurately. This helps the organizations gain a competitive advantage by proactively identifying customer demand across various stages of the product lifecycle and achieving organizational goals with the right pricing and promotion optimization strategies.

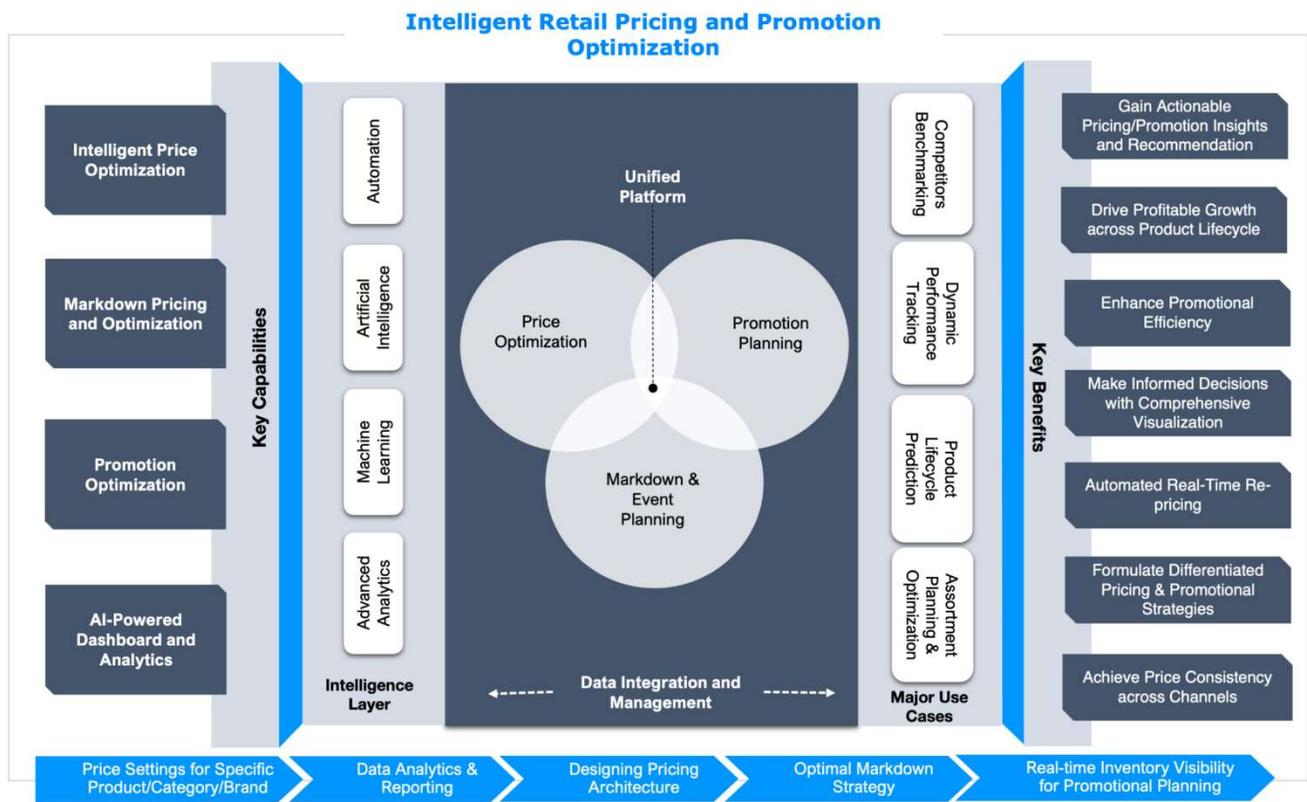
Quadrant Knowledge Solutions' SPARK Matrix: Intelligent Retail Pricing and Promotion Optimization, 2021 research includes a detailed analysis of the global market regarding short-term and long-term growth opportunities, emerging technology trends, market trends, and future market outlook. The study provides a comprehensive market forecast analysis of the global market in various geographical regions and the overall market adoption. This research provides strategic information for technology vendors to better understand the market supporting their growth strategies and for users to evaluate different vendors' capabilities, competitive differentiation, and market position.

This study includes analysis of key intelligent retail pricing and promotion optimization vendors, including Aifora, Antuit.ai, Revionics (an Aptos Co.), Blue Yonder, Clear Demand, Competera, Daisy Intelligence, DemandTec, Dunnhumby, Engage3, First Insights, Hypersonix, IBM, Intelligence Node, IRI Worldwide, Logility, Mi9 Retail, Oracle Retail, Periscope by McKinsey, RELEX Solutions, Retail Express, Retalon, SAP, Solvoyo, Symphony RetailAI, Yieldigo.

Revionics (an Aptos Co.), Blue Yonder, Intelligence Node, Mi9 RetailAI, Oracle Retail, Periscope by McKinsey, Symphony RetailAI are amongst the top performers and 2021 technology leaders in 2021 SPARK Matrix analysis of the Intelligent Retail Pricing and Promotion Optimization market. Aifora, Daisy Intelligence, and Solvoyo are amongst the emerging IRP&PO technology leaders.

Antuit.ai, Dunnhumby, First Insights, IBM, IRI Worldwide, Logility, RELEX Solutions, and SAP have been positioned as the major challenges. The other vendors captured in the SPARK Matrix include Engage3, Competera, Retail Express, Hypersonix, Yieldigo, Clear Demand, Retalon, and DemandTec.

Figure: A Framework for Intelligent Retail Pricing and Promotion Optimization Platform



Market Dynamics and Trends

The following are the key research findings of Quadrant Knowledge Solutions Intelligent Retail Pricing & Promotion Optimization research:

- ◆ The rise in online and mobile shopping is driving retailers to adopt IRP&PO platforms to deliver competitive pricing and personalized promotional offers to stay ahead of the competition.
- ◆ IRP&PO vendors are significantly investing in improving their artificial intelligence, machine learning, and advanced analytics capabilities to support a wide range of use cases, as well as improve the overall sales strategy and business performance.
- ◆ The value proposition of AI/ML-driven pricing solutions includes adjusting product prices based on changing market conditions, providing intelligent discounts, optimizing existing data usage, and determining product performance is driving significant adoption.
- ◆ The IRP&PO platform's ability to provide contextualized real-time pricing for customers based on their communication channels, geographical location, seasonality, and more to delight customers and maximize repeat purchases.
- ◆ The ability of the platform to provide simulation/what-if capability to formulate and understand the performance of pricing and promotional strategies, especially owing to the uncertainties in the COVID-19 pandemic, changing customer behaviour, and dynamic competitive landscape.
- ◆ Growing focus on leveraging automation across various pricing processes such as formulating pricing strategies, tracking, and understanding these strategies' impact and performance to drive increased ROI.
- ◆ Customers have grown more price-sensitive as a result of the worldwide pandemic, prompting retailers to implement advanced pricing solutions to meet the need for competitive pricing and drive customer loyalty. Organizations are focusing on offering market-based pricing as customers are comparing alternative product prices to get the best deals.

- ◆ Continued investments towards several digital transformation projects and customer-centric initiatives.

While most IRP&PO may provide all the core functionalities, the breadth and depth of functionalities may differ by different vendors' offerings. Driven by increasing competition, vendors are increasingly looking at improving their technology capabilities and overall value proposition to remain competitive. Users should evaluate IRP&PO platforms that offer comprehensive capabilities to provide seamless connectivity with organization-owned tools and platforms, a broad range of out-of-the-box capabilities, scalability & extensibility, unified pricing & promotional visibility, advanced analytics, markdown optimizations, event & campaign management, and such others. Additionally, the vendor's customer value proposition may differ in terms of ease of deployment, ease of use, price/performance ratio, support for a broad range of use cases, global support service, and such others. The supply chain and retail space are continuously transforming, requiring vendors to expand their R&D investments, make continuous enhancements to their software and provide a robust technology value proposition to ensure future customer needs are met. The vendor's ability to accommodate emerging technology trends such as artificial intelligence, machine learning technologies, and capability to offer a holistic and unified platform is increasingly becoming key differentiators for selecting IRP&PO platforms.

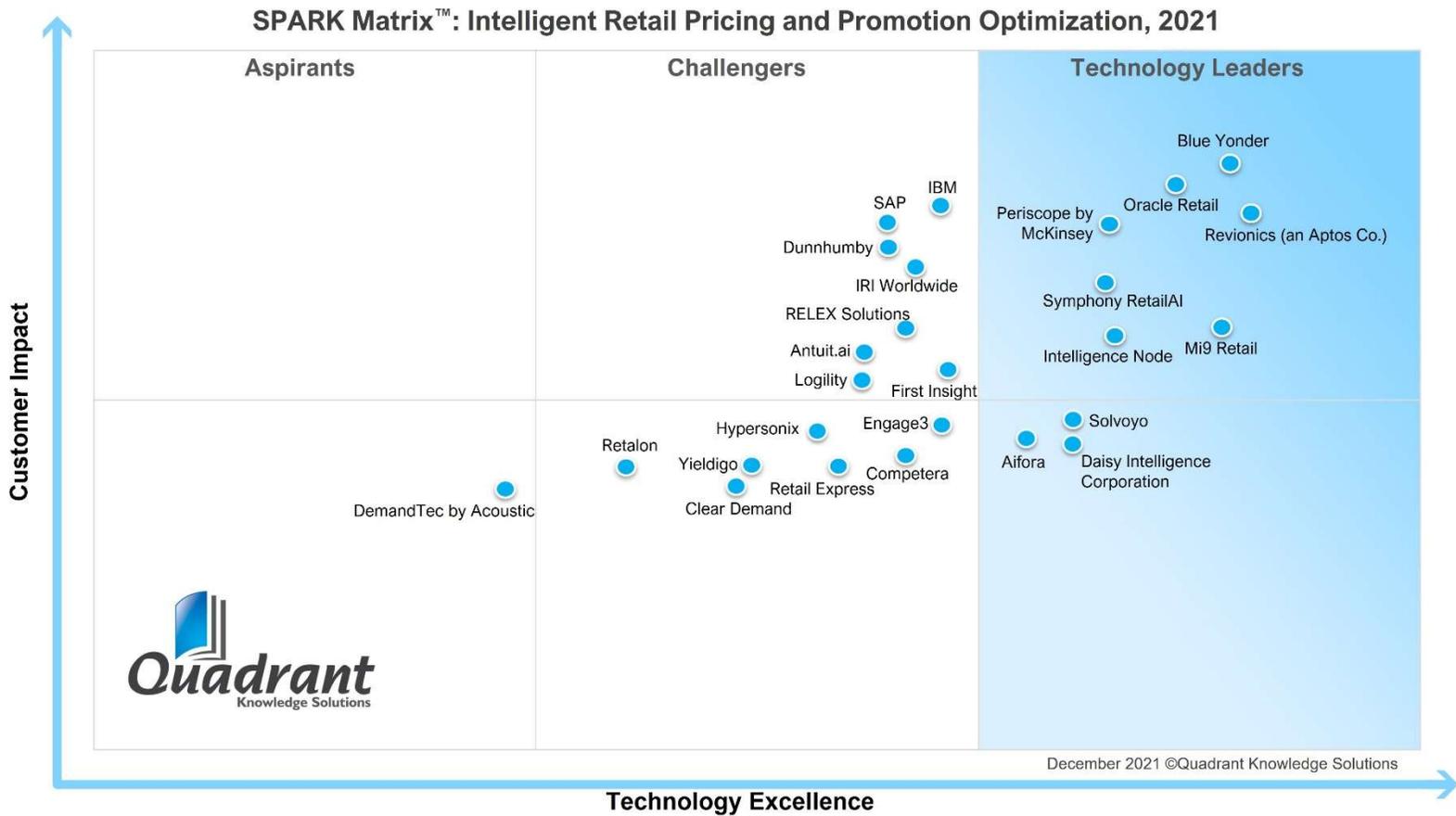
SPARK Matrix Analysis of the Intelligent Retail Pricing & Promotion Optimization (IRP&PO) Market

Quadrant Knowledge Solutions conducted an in-depth analysis of the major Intelligent Retail Pricing & Promotion Optimization (IRP&PO) vendors by evaluating their product portfolio, market presence, and customer value proposition. IRP&PO market outlook provides competitive analysis and a ranking of the leading vendors in the form of a proprietary SPARK Matrix™. SPARK Matrix analysis provides a snapshot of key market participants and a visual representation of market participants. It provides strategic insights on how each vendor ranks related to their competitors based on their respective technology excellence and customer impact parameters. The evaluation is based on primary research including expert interviews, analysis of use cases, and Quadrant's internal analysis of the overall IRP&PO market.

Technology Excellence	Weightage	Customer Impact	Weightage
Sophistication of Technology	20%	Product Strategy & Performance	20%
Competitive Differentiation Strategy	20%	Market Presence	20%
Application Diversity	15%	Proven Record	15%
Scalability	15%	Ease of Deployment & Use	15%
Integration & Interoperability	15%	Customer Service Excellence	15%
Vision & Roadmap	15%	Unique Value Proposition	15%

According to the SPARK Matrix analysis of the global Intelligent Retail Pricing & Promotion Optimization (IRP&PO), “Blue Yonder, with its broad & unified architecture, and robust functional capability of its product- Luminate Planning Platform” has secured strong ratings across the performance parameters of technology excellence and customer impact and has been positioned amongst the technology leaders in the 2021 SPARK Matrix of the Intelligent Retail Pricing and Promotion Optimization (IRP&PO) market.

Figure: 2021 SPARK Matrix
 (Strategic Performance Assessment and Ranking)
 Global Intelligent Retail Pricing and Promotion Optimization Market



Blue Yonder Capabilities in the Global Intelligent Retail Pricing and Promotion Optimization (IRP&PO) Market

Founded in 1985 and headquartered in Scottsdale, Arizona, United States, Blue Yonder offers end-to-end supply chain management and omnichannel commerce solutions. In September 2021, Panasonic acquired Blue Yonder to offer enhanced end-to-end supply chain solutions and work collaboratively towards its shared vision of Autonomous Supply Chain™ by aggregating IoT and AI/ML technologies. The company's Luminate™ Platform offers supply chain planning and management capabilities, alongside workforce optimization, assortment and space management, pricing & promotions, and omnichannel fulfilment. These capabilities enable retailers to deliver personalized fulfilment experiences to consumers. The platform's pricing and promotions capability enable retailers to make intelligent pricing and promotion decisions across the product lifecycle.

Luminate™ platform offers capabilities for retailers to optimize prices across an item's lifecycle, from initial price to clearance, across channels, using solutions designed to achieve specific outcomes at different points over a product's lifecycle.

Blue Yonder's Luminate Market Pricing offers optimized prices for every channel and product based on predicted consumer demand, brand loyalty, and local and changing market conditions. The platform leverages AI/ML-based algorithms to offer dynamic pricing for online and brick-and-mortar stores. The solution's key features include strategic optimization, predicting price elasticities, demand forecasting, optimizing business strategies & decisions, and simplified automated pricing. The platform's automated price update process facilitates daily pricing and frees up resources to focus on the strategic assortment planning tasks. Luminate Market Price recommends intelligent prices based on learnings from current and historical data to reflect the organization's business goals, catering for pricing strategies that optimize for revenue, margin, or a mix of approaches.

Luminate Clearance Price facilitates markdowns based on real-time demand data segmented by item colour, size, shop location, and other fine parameters. The solution's algorithms facilitate better-estimated demand and markdowns. Blue Yonder's AI-enabled solutions allow the replacement of the permanent markdowns with short-term promotional prices that maximize all outcomes by capturing real-time demand data and merging it with data on current inventory levels and profit targets.

The solution allows retailers to manage inventory, eliminate waste, and avoid wasteful markdowns to recommend the proper goods distribution down to size. Retailers can match their product placement with Blue Yonder's allocation, automate distributions, and restocking to boost productivity and. The solution integrates seamlessly with other retail planning systems to maximize profitability. Luminate real-time pricing improves the performance of various fresh food markdowns in every aspect. Through its proprietary AI, it calculates store-specific item pricing elasticities alongside numerous demand factors such as inventory level, weather, and events and distributes them to stores in real-time without re-engineering existing processes. All markdown prices' costs and effects are analyzed and considered along with predicted consumer behaviors, product master data, and other data streams. The solution facilitates autonomous calculation of markdown prices and delivers it to an in-store markdown tool at a convenient time.

For fresh food markdown, the same intelligence designed to clear seasonal inventory has been focused on intra-day fresh food clearance. Luminate Pricing Real-Time allows in-store colleagues to generate store/item markdown prices at a time that suits the store's schedule and contributes to fewer but more profitable markdowns.

The solution enables retailers to determine the type of items to be promoted in various regions and helps achieve the most promoted price to maximize profit and target market and financial goals. . The solution facilitates complete end-to-end promotion planning and execution and helps retailers create a promotional pricing strategy at any level of the product hierarchy, including and/or excluding product attributes. The solution supports 'What-If' research scenarios to choose the optimal mix of products, marketing techniques, and pricing to satisfy business needs. It guarantees the transmission back of calculated lift for a promotion into the forecast, resulting in an end-to-end seamless integration system to support the full price & promotion planning and execution process for businesses of all sizes.

Analyst Perspective

Following is the analysis of the Blue Yonder's capabilities in the Intelligent Retail Pricing and Promotion Optimization market:

- ◆ Blue Yonder's Luminare platform, enables retailers to refocus on inventory, space, pricing, workforce, and store operations to new changes in demand by offering real-time data and intelligent insights. The platform's pricing and promotion capabilities help retailers drive profits from market launches through markdown, provide cross-channel price consistency, and reduce excess stock and avoid waste. Luminare Commerce The platform's key technological differentiators include SaaS delivery on Microsoft Azure for Agility, modern UX, learnings from current and historical data, 'What-If' analysis for product mix, seamless integration, and real-time demand data.
- ◆ The company supports various use cases such as reducing inventory costs by clearing stock more efficiently, improving staff productivity and helping retailers in improving customers' shopping experience by meeting their merchandise and pricing expectations.
- ◆ From a geographical presence perspective, Blue Yonder has a major presence in North America and Europe, followed by the Asia Pacific, Middle East, and Africa, and Australia. From an industry vertical perspective, the company holds a customer base across a range of industry verticals, including retail grocery, retail hardlines, retail soft lines, consumer industries, automotive & industrial, high-tech & semiconductor, and third-party logistics.
- ◆ Blue Yonder faces competition from well-established and emerging and niche players in the retail price optimization platform market. However, with its comprehensive and sophisticated range of retail planning and optimization solutions coupled with AI/ML insights, real-time data, predictive visibility, and AI-backed recommendations, Blue Yonder will continue to hold a strong position in the intelligent retail price and promotion optimization market.
- ◆ Concerning product strategy & roadmap, Blue Yonder plans to continue enhancing its solutions by adding retail capabilities to its solutions. The company has recently partnered with UST for extended capabilities from their existing practices, including innovation labs, test

automation factories, AI practices, cloud, etc. The company has responded well to the pandemic situation by integrating live data from the CDC data and providing retailers with real-time visibility into the impact of the pandemic on their businesses. The company plans to consistently enhance its products to tackle future uncertainties.