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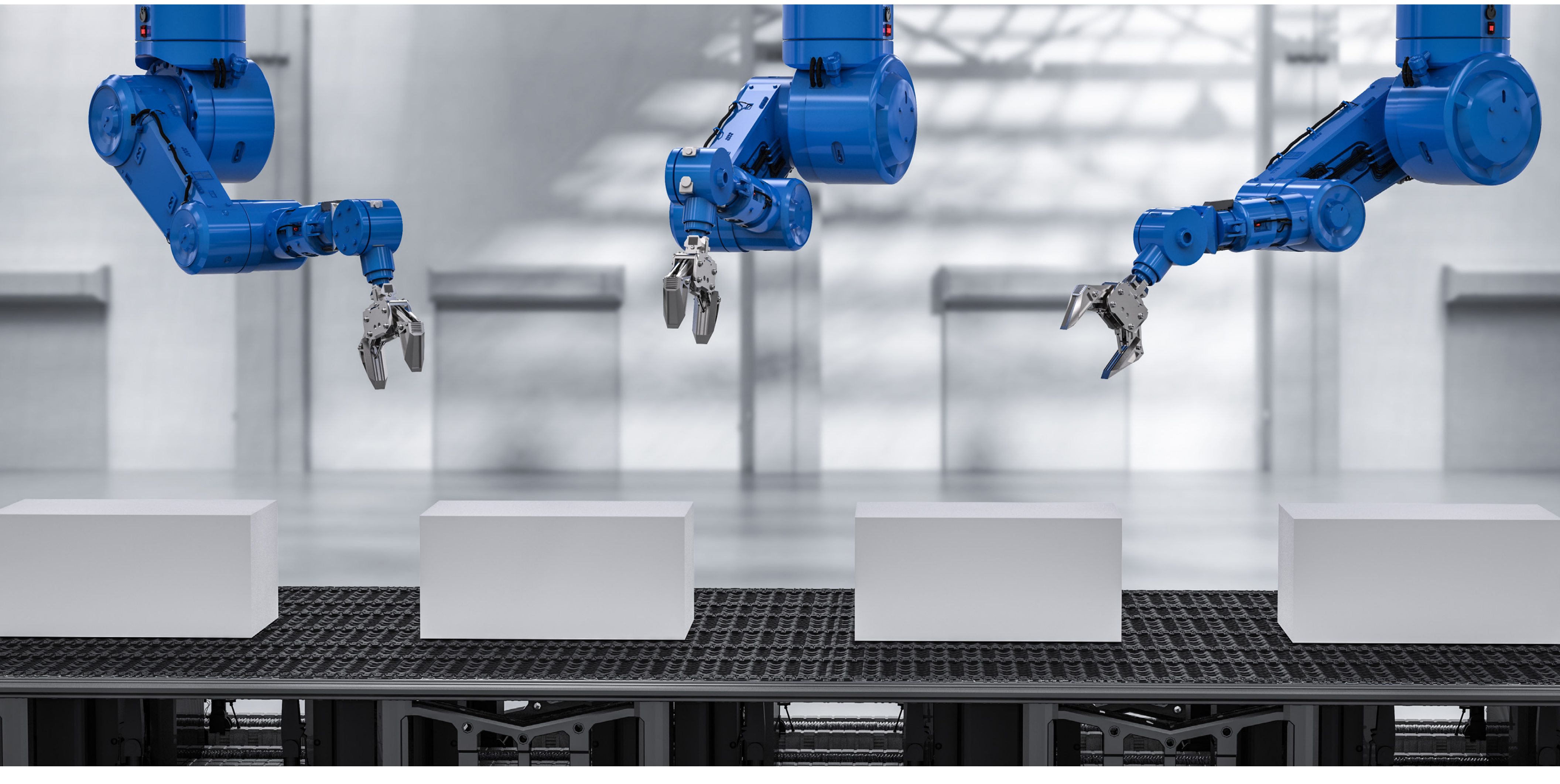
FAIRCHILD STUDIO X ORACLE

SPECIAL REPORT

REINVENTING RETAIL:

NAVIGATING TARIFFS, TECHNOLOGY AND TRENDS IN PRICING AND ALLOCATION

Exploring the challenges and solutions in modern retail management.



IN AN ERA CHARACTERIZED by rapid technological advancements and fluctuating global trading conditions, retailers and brands are facing a multifaceted array of challenges. From managing the complexities of inventory allocation to devising effective pricing strategies amidst geopolitical uncertainties such as tariffs and supply chain disruptions, the retail landscape is continually evolving.

This report delves into the critical aspects of retail management, exploring the pressing issues of overstock, understock, dynamic pricing and the far-reaching impacts of tariffs on pricing strategies.

By examining these aspects, we aim to uncover how retailers can harness innovative technologies and strategic insights to remain competitive, responsive and future-ready in a dynamic market environment.

UNDERSTANDING THE CORE ALLOCATION CHALLENGES

Retail is a complicated business and effective inventory management plays a critical role in ensuring operational efficiency as well as customer satisfaction. And allocation, the process of distributing the right quantities of products to the right locations and at the right time, presents significant challenges — particularly when dealing with issues such as overstock and understock, inaccurate demand forecasting and inefficient distribution strategies.

Overstock and Understock Issues

One of the most pressing concerns in retail allocation is balancing overstocks and understocks. Overstock occurs when too much inventory is on hand, leading to increased storage costs, potential markdowns and reduced profitability. Understocks is where there is insufficient stock to meet demand, which can result in missed sales

opportunities, customer dissatisfaction and even tarnished brand reputation.

Both overstock and understock issues stem from several factors, including poor demand forecasting, inefficient replenishment practices and inflexible supply chain systems that cannot adapt to changing market conditions.

Therefore, accurate demand forecasting is key and really serves as the cornerstone of effective retail allocation. However, predicting customer demand with precision is complicated by several variables. This includes fluctuating market trends, changing consumer preferences, seasonal influences and unforeseen events such as economic downturns, pandemics and, in the current market, the impact of potential tariffs.

A retailer's distribution strategy also significantly impacts allocation efficiency. An inefficient distribution system may delay product availability which can lead to lost sales, or it could distribute products inappropriately across retail channels and locations — resulting in unsold inventory accumulating.

Dig Deeper

So far, we've discussed allocation from a broad inventory management perspective. But did you know there's a science behind aisle- and shelf-level product allocation? In this research article, scholars look at the "category space location-allocation problem" and how new evidenced-based models can create a better store design.

CHALLENGES OF PRICING

In today's ever-evolving retail landscape, retailers and brands are continually adjusting their strategies to outpace competitors, attract consumers and maximize profits. Yet, recent challenges such as the complexities of dynamic pricing, optimization hurdles, tariffs, changing trade policies, supply chain disruptions and container shortages are forcing companies to rethink their pricing models.

The Dynamic Pricing Dilemma and Price Optimization

At the forefront of retail strategies is dynamic pricing, a model that allows prices to fluctuate based on market demand, competition and other external factors. While this can maximize sales and earnings during high-demand periods, it presents significant challenges.

While companies such as Amazon have successfully implemented dynamic pricing strategies, many smaller retailers lack the sophisticated tools to analyze big data and predict demand curves. This means potentially losing out on maximizing profits or worse, losing customers due to erratic pricing. Moreover, retailers such as Amazon and Walmart leverage data across various categories and customer segmentation to determine whether promotions will be necessary or not.

Coming up with price optimization strategies is also tricky because it's a bit of a dance between science and art.

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Oracle Retail Merchandising gives a single view of inventory. To learn more, **CLICK HERE**.

Retailers and brands need to consider cost, competitor pricing and willingness of customers to pay — all of which becomes incredibly complex when external factors come into play. The introduction of AI and machine learning has provided some solutions, but there are challenges in collecting accurate data points and then transforming it into truly actionable strategies.

Tariffs and Supply Chain Disruptions

Recent tariffs and changing trade policies have further complicated the pricing strategies for retailers, particularly those reliant on foreign goods and materials. Businesses are finding it hard to forecast costs, and in turn, set stable prices for their products.

In fashion apparel and footwear, sourcing products that can deliver consistent gross margins is essential. When tariffs in Mexico and China were first announced in November of 2024 when President Trump took office, brands and retailers went straight to work creating contingency plans and alternative sourcing strategies. Days after the announcement, footwear brand Steve Madden

immediately deployed a sourcing strategy to mitigate the impact of tariffs.

The essential question with tariff impacts would be what will happen to demand if prices increase? Price elasticity is an estimate of expected unit demand change in response to a given price change. Accurate and reliable price elasticity estimation is an important feature of Oracle Retail AI Foundation Cloud Service. Advanced machine learning techniques are used to determine optimal data sampling levels, multiple data cleansing approaches are available such as detrending and deseasonalizing, and several mathematical functional forms are tested to best model price elasticity.

Tariffs and the impact on pricing were also top of mind during the National Retail Federation's Big Show in January. And this past February at Texworld and the Apparel Sourcing shows in Paris, tariffs topped all conversations. Julien Schmoll, marketing director at trade show operator Messe Frankfurt France, told WWD that the event, overall, was very positive and that the season was defined by geopolitical uncertainty following U.S. President Trump's announcement of 10 percent tariffs on all Chinese imports. "Obviously Chinese manufacturers have to sell their goods somewhere — so they're trying to maximize sales in Europe," Schmoll said.

Tariffs are not the only force that can disrupt business and how goods are priced. When the COVID-19 pandemic hit, it exposed the vulnerability of global supply chains. Disruptions have led to delays, shortages and increased costs, rippling through to retail pricing. Electronics, clothing and automotive industries had been hit hard, with delays leading to a scarcity that drives up prices. Many retailers were also forced to find alternatives for shipping goods. Again, that impacted price points.

Dig Deeper

Flash Back: In many ways the COVID-19 pandemic was unprecedented regarding how it impacted business. Check out this CNBC news feature from 2020 that put a spotlight on how companies reacted in light of having most of their products sourced from China. Lesson learned: diversify your product sourcing.

Container Shortages and Cargo Crisis

A lesser-known but equally significant issue is the global shortage of cargo containers, which has escalated shipping costs exponentially. Retailers and brands face the dilemma of either absorbing these costs or passing them onto consumers. Industry analysts have noted that the cost to ship a container from Asia to the U.S. has more than quadrupled over the past five years. It's evolved into a logistical nightmare that is not just about delays, but a substantial financial strain that impacts pricing.

Oracle Retail Lifecycle Pricing Optimization automates pricing decisions. To learn more, **CLICK HERE**.

The origins of the shipping container shortage goes back to 2020. "As countries around the world went into lockdown to curb the spread of the virus, global trade came to a near halt," noted container supply OSG in a report last year. "Factories closed, and demand for goods plummeted, leading to a sharp decline in the number of containers being used. Shipping lines reduced their services, and many containers were left stranded at ports and inland depots."

The report's authors said as business recovered and demand for goods surged in late 2020 and early 2021, "the supply of containers could not keep pace. The sudden spike in consumer demand, especially for goods manufactured in Asia, led to a scramble for available containers." But the supply chain was still recovering from the disruptions caused by the pandemic, "and the imbalance between the supply and demand for containers became more pronounced."

What makes all of these variable to pricing (and allocation) is that these are macro- and geo-political factors that are simply out of the control of retailers and brands. Executive leaders have no control of these challenges, but they can mitigate their impact by turning to technology and deploying it with the right strategy.

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SOLUTIONS TO ADDRESS THESE CHALLENGES

Oracle’s Advanced Retail Tech Solutions Pave the Way in Pricing and Allocation

As we’ve seen, in the current retail market landscape, brands and retailers face numerous challenges ranging from stock management to ensuring appropriate pricing strategies. Oracle has positioned itself at the forefront, offering tech solutions that meet these dynamic needs – especially in terms of allocation and pricing.

Allocation Mastery with Oracle Retail Inventory Planning Optimization

Oracle Retail Inventory Planning Optimization offers an arsenal of features designed to optimize the allocation process, ensuring that products are delivered to the right place at the right time. This includes:

SKU/Location Level Need Analysis: Oracle’s software goes beyond meeting the gross need of assessment by integrating real-time data such as stock on hand and in-transit inventory. This results in a more precise net need calculation for each item/location pair, effectively reducing overstocks and unnecessary markdowns.

Role-Based Dashboards: Custom dashboards are designed for the specific roles within the retail value chain, empowering allocators with the real-time data needed to manage allocations efficiently. These dashboards also highlight potentially problematic areas requiring immediate attention.

Multiple Allocation Methods: The flexibility offered by Oracle allows retailers to select the best allocation method depending on various factors like historical data, demand forecasts and current sales performance.

Integration with Oracle Retail Systems: Oracle’s allocation system is seamlessly integrated with other retail systems for merchandising, planning and demand forecasting which amplifies the cohesion across retail processes.

Promotion of Buying Accuracy: Allocations can be modeled on hypothetical scenarios allowing retailers to fine-tune their purchase orders and promotions effectively through the bottom-up demand at the item/location level.

Real-time Inventory Management and Automated Replenishment

The benefits of incorporating real-time inventory management and automated replenishment systems are manifold:

Enhanced Supply Chain Efficiency: Retailers experience lower working capital and improved control over service levels.

Automation: This not only saves time but allows the staff to focus on more complex decision-making processes.

60 %

RECOMMEN-DATIONS ARE ACTIONED

40 %

REDUCTION IN AGED INVENTORY.

Pricing Solutions Powered by AI and Machine Learning

Oracle's application of AI and machine learning in pricing is transforming retail strategies and can be used in a variety of scenarios:

AI in Regular Pricing: For items without historical data, Oracle utilizes AI to recommend prices based on similar items, optimizing pricing from the get-go.

Lifecycle Pricing Optimization: This platform enhances markdown management by allowing precise control over the timing and extent of price changes, ensuring short lifecycle management and margin protection.

Impact of Tariffs: Oracle's solutions are specially designed to help retailers adjust their assortment planning, sourcing and pricing strategies in response to tariffs, thereby maintaining profitability and market competitiveness.

Oracle's Holistic Approach to Retail Excellence

Investing in Oracle's comprehensive tech solutions provides retailers with numerous benefits, including:

Inventory Optimization: Sophisticated forecasting and allocation tools ensure high product availability and optimized inventory turn rates.
• Enhanced Customer Experience: AI-driven pricing and allocation strategies mean customers will more likely find the products they want at the price points they accept.
• Reduced Waste and Increased Margins: Especially critical for perishable goods, optimal inventory forecasting and lifecycle pricing reduce waste and enhance profit margins.

4-10 %

AVERAGE GROSS MARGIN INCREASE.

Oracle Retail AI Foundation is a game changer. To learn more, **CLICK HERE**.

CASE STUDY

Helzberg Diamonds adds clarity and optimization with AI

Business Challenges: Helzberg Diamonds embarked on a search for a new retail solution focusing on the tenets of scalability, efficiency, reliability and accuracy. Critically, it also had to have assortment capabilities that could support its end-to-end processes, including open-to-buy.

Need: They had the need to re-evaluate the pre-season assortment planning and demand transference approach and the tools that would simplify decision making, connect analytics, solutions and processes, while balancing art with science.

Solution: Oracle Retail Science Cloud Services were leveraged to revamp their forecasting strategy and transition to a more dynamic and analytics-driven approach. With access to a comprehensive suite of retail applications, the retailer collaborated with Oracle to implement Oracle Retail Merchandise Financial Planning, Retail Demand Forecasting, Assortment Planning and Retail Analytics alongside their existing Oracle systems.

Process: Oracle's AI Foundation platform provided the ability to implement components in phases into its end-to-end process.
• Category Demand Forecasting used for predicting future category-store-week unit demand.

Outcome and Results

The retailer has been able to produce consistent and reliable outputs impacting out of stock rates with continued improvement along the journey. Results include:
• Oracle provided 154,000 SKU store machine learning recommendations, which 95% were executed on.
• Running an optimization on constrained inventory for Mother's Day was able to improve their out of stock rate by 50 percent, vs. prior year's Mother's Day period.
• Prior out of stock rate was 14 percent, which was cut in half to a 7 percent out of stock rate.

Other Use Cases of Oracle's AI Foundation Platform:
• Customer Segmentation can be used to understand composition across a diverse set of categories.
• Customer Decision Trees enable insights into what top decisions customers are making when shopping.
• Advanced Clustering allows differentiation between volume and key attribution markers in clustering approach.
• Profile Sciences helps identify localized need and missed sales opportunity to capture Store Level Size Profiles.

Conclusion

As retailers grapple with the intricate balance of inventory management and pricing in a turbulent market, innovative solutions and strategic foresight are key. Overcoming the challenges of overstocks and understocks, navigating the uncertainties of tariffs and optimizing dynamic pricing are vital for retail success. Technology, particularly the advanced solutions provided by platforms like Oracle, plays a pivotal role in transforming these challenges into opportunities for growth and efficiency.

With tools that enhance demand forecasting, automate replenishment and refine pricing strategies, retailers can not only survive but thrive in an ever-changing global marketplace. This demands a continuous adaptation and a proactive approach to both technology deployment and strategic planning, ensuring that retail operations are robust, responsive and resilient in the face of global economic shifts and consumer trends.

Going Deeper: Oracle Solutions

To learn more about Oracle's complete retail master data management, inventory, and financial valuation proposition, see:

Merchandising System – Manage, control and perform seamless execution of day-to-day merchandising activities, including purchasing, distribution, order fulfillment and financial close.

Invoice Matching – Manage the matching, reconciliation and payment of supplier invoices with a configurable, automated solution. Resolve identified exceptions using workflows that are aligned with business policies.

Sales Audit – Process and validate sales transactions from all channels. Ensure clean and consistent sales information while managing discrepancies by exception.

"WITH TOOLS THAT ENHANCE DEMAND FORECASTING, AUTOMATE REPLENISHMENT AND REFINE PRICING STRATEGIES, RETAILERS CAN NOT ONLY SURVIVE BUT THRIVE IN AN EVER-CHANGING GLOBAL MARKETPLACE."

Oracle Retail Assortment and Space Optimization maximizes product placement. To learn more, **CLICK HERE**.

Retail Pricing – Implement a complete, rules-based pricing engine that supports regular, promotional and clearance pricing across all touchpoints.

Allocation – Deliver products to the right place at the right time with a powerful, accurate and easy-to-use method of allocating merchandise. Effectively allocate products through their lifecycle to get them in front of the right shoppers.

Attribute extraction and binning – Extract item attributes from free-form descriptions, correcting short forms, misspellings and other inconsistencies and apply them to demand transference, customer decision trees, advanced clustering and more.

Affinity Analysis /Market Basket – Determine how items interact with each other for an effective promotional strategy within your financial planning process.

Action Plan

Tactics:
- Streamline purchase order management process by enabling merchandisers to manage by exception.
- Provide a single view of workflow to increase process efficiencies and drive productivity.
- Support for fresh item management through end-to-end visibility of inventory of both orderable and sellable items.
- Drive more accurate forecasting ordering for perishable goods and ingredient items, ultimately minimizing waste.

Outcomes:
- Comprehensive visibility to inventory in all channels enables available-to-promise.
- Improve inventory turn rates, avoid stock outs and minimize markdowns.
- Consolidation of price events and management of conflicts.
- Accuracy in inventory valuation including support for cost and retail methods.

Further Insights and Resources From Oracle

Are you interested in learning more about Oracle's complete retail master data management, inventory and financial valuation proposition as well as garnering insights, data and strategies to manage these challenging times? **Check out this list of additional resources, white papers and solution profiles from Oracle:**

- AI Foundation
- Inventory Planning Optimization
- Lifecycle Pricing Optimization
- Merchandise Financial Planning
- Assortment Planning
- Assortment & Space Optimization
- Retail Insights

IN PARTNERSHIP WITH ORACLE

ORACLE
Retail

Confidently predict retail demand

Leading fashion and specialty retailers use Oracle solutions to deliver connected journeys, applied innovations, and personalized experiences.

See what analysts are saying about Oracle Retail