

The future of retail

Three trends and how artificial intelligence can drive business success

Retailers face many challenges when it comes to responding to customer needs, especially in times of uncertainty. With disruptions like changing trade regulations, economic uncertainty, natural disasters and COVID-19 creating challenges for consumers and supply chains alike, retailers need to plan accordingly and adopt new strategies to stay successful and competitive in the future.

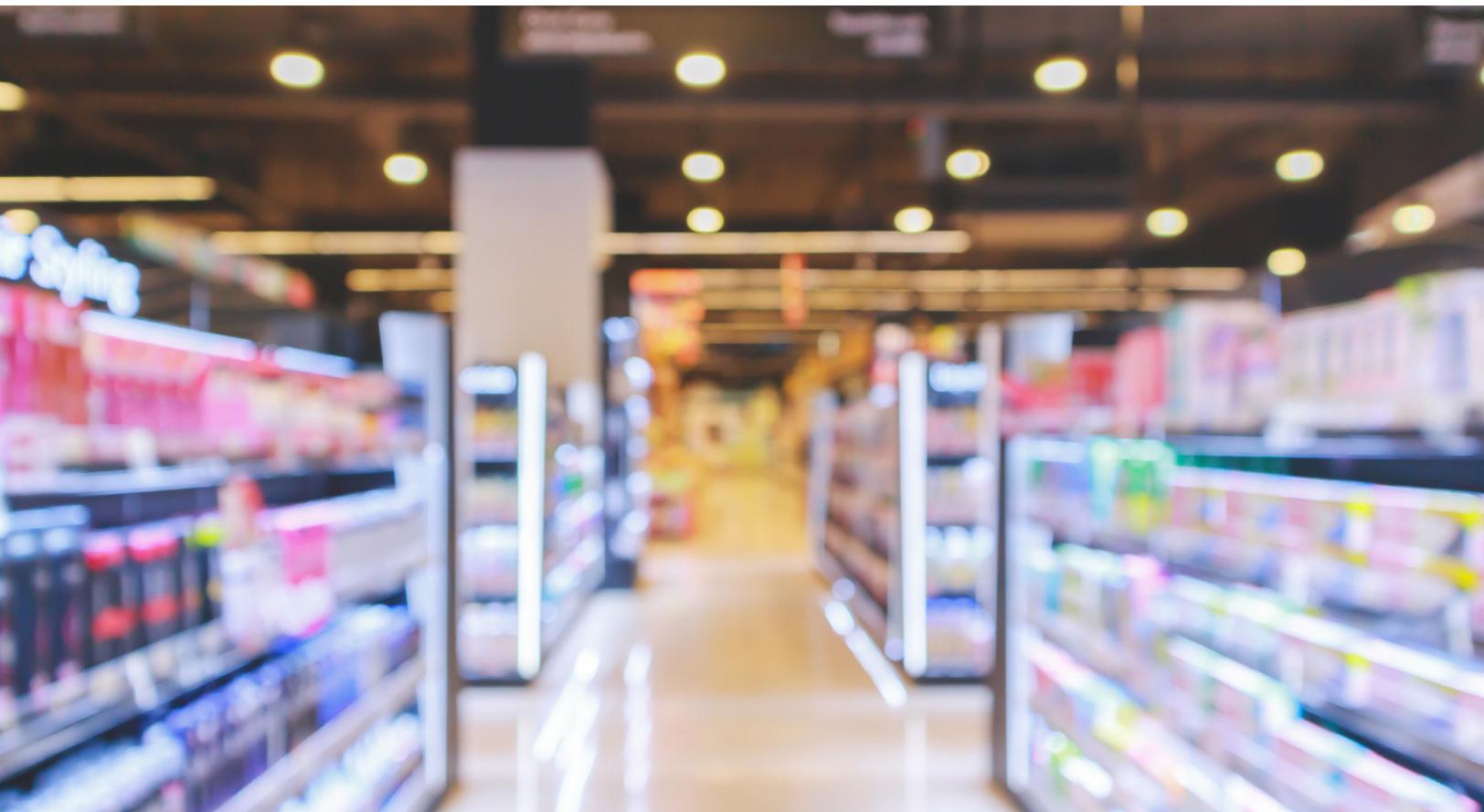
A brief history of retail: From one store to a global retail chain

Retail began as a single store with one owner who would make all the decisions – from products and pricing, to promotion and inventory management. From there, a store might grow organically to two, three, or more stores.

Over the years, retailers started to expand significantly through organic growth and other means, such as mergers and acquisitions to become global chains. Now, we live in a world where multiple retailers are stitched together across thousands of categories and geographies, resulting in disparate systems and processes that aren't automated. While many retailers are now largely public entities of mass consolidation, their approach unfortunately still lies in that single-store merchandising-centric view of the world. For retailers to survive, that view will have to change.

Can retail's resiliency carry on into the future?

With the recent disruptions of 2020 affecting retailers globally, some fear the end of the industry as we know it. It can be easy to forget that the top dogs have been around for over a hundred years and have seen their fair share of major changes. For example, Target, HEB, Meijer, Kroger and Publix have been top grocers in the US for nearly a century. This resiliency isn't unique to grocers; we've also seen it in retailers across beauty, pharmaceuticals, convenience and home. However, what has made these retailers successful in the past may not be sufficient in today's rapidly changing world – in part because of the disruptions we've just mentioned and the emergence of three key retail trends. The extent to which retailers address these trends could cement their success or lead to their demise.



Three major trends in retail

1 Acceleration of omni-channel

The first trend we can't ignore is the acceleration of omni-channel, specifically within e-commerce and with the rise of the mighty behemoth Amazon. The e-commerce experience has quickly evolved to where customers can purchase items online and control how, where and when products are delivered or picked up. Common examples include, 'buy online, pick up in store (BOPIS)' and buy online and ship from a nearby store.



With the COVID-19 pandemic, e-commerce revenue has jumped from low single-digits to mid-20 percent of total revenue for many retail verticals. With this trend accelerating, a few things will need to change.

First, physical stores will need to operate as fulfillment centers for themselves and third-party companies like Instacart, with a requirement for rollout to happen quickly, efficiently and on a national scale. Retailers that have traditionally had six or seven distribution centers, will need to convert their stores into hundreds or thousands of centers.

Second, retailers need to address the areas of their supply chain where they haven't been deeply involved. Customers now expect to know exactly when they can pick up or receive their orders, and whether they'll be sent by the retailer or through a third-party logistics company. Last-mile delivery is now more complex and an even bigger responsibility for retailers because customers hold them entirely accountable for the delivery experience.

Third, retailers will need to approach promotion planning in a more unified way across e-commerce and physical stores. Purchasing behaviors, pricing and product offerings will need to be considered for each channel, while ensuring the customer experience is seamless, whether they're shopping online or in-store. Although omni-channel presents a tremendous opportunity to deliver a seamless customer experience, it will also require a significant amount of work retailers must get ahead of quickly.

2 Explosion of private labels

Increased assortment of private label products is something for which Amazon is renowned. Amazon incorporates insights about their customers to build their own products for categories they believe will drive profitable sales and improve the shopping experience. Retailers are more proactively focusing on developing these products to best represent the categories they want to be associated with, such as health-conscious or sustainable goods.



With this shift, retailers will not only need to work more closely with third-party manufacturers, but also need to think and operate more like a consumer packaged goods company. This is already creating a significant amount of planning challenges, but also provides a substantial growth and profit opportunity.

3 Automation everywhere

Automation is growing across all core operations – everything from self-checkouts and distribution centers, to home deliveries and the picking and packing of goods, to one day, even drone delivery of goods to consumers' homes. Most importantly, especially in the short term with the ongoing pandemic, corporate systems are becoming more automated.

Manually inputting data into spreadsheets to plan activities such as promotions or price optimization are being eliminated.



Automation will be a cornerstone of every core business process function in the future, enhancing the customer experience and freeing up time for employees to work on higher-value activities such as developing omni-channel strategy and expanding private label assortment. The key to capitalizing on this automation trend is to find the right balance of machine automation and human intervention.



How to prepare for any future

How can retailers adopt a mindset to prepare for any future? It's difficult to ignore the present and its recent disruptions, including economic uncertainty, natural disasters and the global health crisis. The real challenge for retailers will be balancing response to today's disruptions with building an AI-driven strategy that will help to address the trends discussed in this paper, and prevent retailers from falling behind the competition.

AI empowers planners to make fast, confident decisions

It's an understatement to say that customer expectations and behaviors are changing. This was true before the pandemic and remains true in much less predictable ways since. In the US, for example, 40 percent of consumers plan to reduce spending in general, with most of the reduction coming from non-essential categories [\[McKinsey\]](#).¹

To address this behavior, retailers typically look to core vehicles such as promotions and price-cuts to drive up revenue. However, many retailers still assume that the revenue-driving vehicles that worked in the past will still work today and in the future, which leaves them unable to capitalize on the rapidly changing consumer behaviors. AI can change all of that. A small percentage of today's retailers have begun adopting AI for promotions and pricing, providing them with the opportunity to differentiate themselves against their competitors.

APPLY AI TO YOUR CORE OPERATIONS

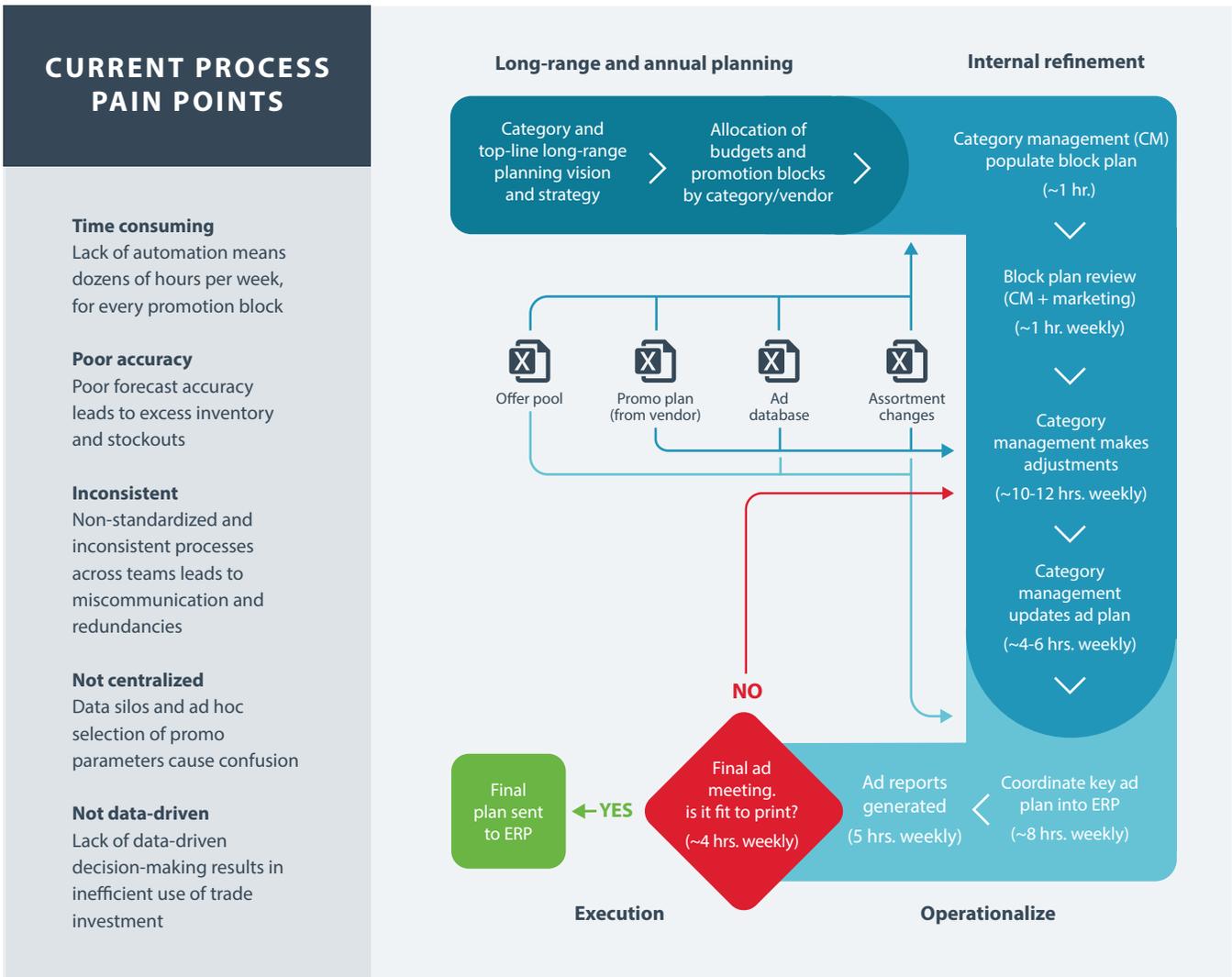
When it comes to core operations, there's no doubt that demand and promotion planning are critical. Traditionally, the process of planning promotions is cumbersome, time consuming, lacks automation and creates poor forecast accuracy, which leads to excess inventory and stock-outs. This is exacerbated by the lack of consistency in data sources and systems with multiple input sources.



Retailers can improve their core operations by applying AI to key components of the demand and promotion planning process.

¹ Charm, Tamara et al., [The great consumer shift: Ten charts that show how US shopping behavior is changing](#), McKinsey, August 4 2020

KEY COMPONENTS OF DEMAND AND PROMOTION PLANNING



LONG-RANGE AND ANNUAL PLANNING

This is the strategic part of the planning process, where leadership sets the high-level promotion planning and overall strategy by category, and hands them over to the planning and category management teams. By marrying an AI demand forecasting engine with a constraint-based optimization engine, retailers can start to pre-build a data-driven promotion plan. It's like a color-by-number approach, where the entire annual plan is set, taking into account minute details, such as price, promotion mechanics, flyer placement, floor displays and other important constraints.

FROM INTERNAL REFINEMENT TO EXECUTION

Once leadership sends long-range promotion plans to the appropriate teams, the relevant category managers and planners break down the block plans further and forecast accordingly within the relevant categories they manage. This is where the empowerment and future-proofing happens. With the right AI forecasting engines providing the highest accuracy, category managers can confidently create what-next scenarios with the speed and agility necessary to execute plans with the most optimal outcomes. With AI as a power-up, retailers can benefit from the accuracy and agility to achieve their business objectives.



By implementing AI into the core operations of promotion planning, retailers can see many positive outcomes, such as a 20-30 percent forecast accuracy improvement and 3-5 percent in promotional sales uplift.

In addition, category managers and planners can become more innovative because they are hypothesis testing with an accurate and agile system. This also leads to a significant productivity improvement, reducing planning time upwards from 30 percent.

TRADE INVESTMENT

One of the key inputs of the promotion planning process is trade investment. This is the monetary investment that flows from vendor to retailer to facilitate the overall promotion planning process and add value to both parties. Hundreds of billions of dollars are exchanged between retailers and vendors on a regular basis. Too often, this exchange is governed by legacy guardrails, leading to 'copy and pasting' investments from one year to the next. What if those billions of dollars could be optimized?

For this to happen, a fundamental shift in how retailers are perceived by their own industry and their vendors needs to happen. Rather than just a place to sell products, a retailer is effectively a platform for trade promotion investment. As a platform, retailers can take advantage of aggregation theory. This is the idea that a retailer has built a massive entity that aggregates consumer demand through a very controlled channel, with that channel being the retailer itself. This includes the retailer's stores, shelves, flyers, promotion space and other assets that allow vendors to promote their products.

By envisioning their businesses as a platform, retailers can better optimize and monetize their trade promotion assets. To do this effectively, the right AI optimization engine needs to be applied so all possible promotion scenarios can be accounted for, bringing a future with trade promotion investment bidding systems to life.

The importance of human intelligence in the continuum of automation options

Keeping the vision for the future in mind, it's important to note that uncertainty is now the new normal. Given shifts in customer behavior and the multitude of disruptive external factors, such as COVID-19 and the dramatic effects of climate change, AI can't always predict everything. When unexpected events happen and predictability is low, it's critical to have a system open and flexible enough to fix issues on the fly. This means combining expert knowledge and machine learning in a hybrid system that alerts planners to direct their attention and expertise to what matters most.

With a hybrid system, retailers can leverage AI to prioritize which forecasts or scenarios to review based on confidence indicators that use uncertainty as the key metric. For example, a forecast with a low confidence score (high uncertainty) can be sent to a planner for review, where the planner can make necessary adjustments to the forecast. Furthermore, a forecast with a high confidence score can be automatically adopted so the planner doesn't need to spend time reviewing it.

Unified visibility across supply and demand

Given the uncertainty of today and what lies ahead, fulfillment closes the loop and plays a critical role in improving demand predictions. With fulfillment and the last-mile experience becoming increasingly more complex, there's also increasing pressure on how to distribute demand across multiple fulfillment touchpoints.

Distribution centers, third-party logistics, deliver to home, pick up in store and ship from store all need to be considered. The key to successful demand distribution lies in the level of supply visibility. This is especially important for retailers that have merchandising, planning, store operations, IT and marketing teams working in silos and causing misalignment. With full visibility of demand and how it links to supply, retailers will have the agility they need to tackle ongoing uncertainty.

Visibility across both demand and supply is especially important when demand is highly unpredictable. In these cases, planners need to assess their supply situation in an agile way to meet and optimally prioritize demand across each fulfillment touchpoint.



Having one centralized view of demand and supply, alongside AI systems that provide accuracy and agility, will enable planners and category managers to spend more time on high-value planning activities that drive better business outcomes.



Kinaxis and the future of retail

At Kinaxis®, we approach our solutions with the future in mind. Leveraging our AI demand forecasting and promotion optimization capabilities, we offer retail solutions to our customers that automate legacy processes, improve forecast accuracy and bring agility to users through forecasting and promotion scenario planning.

Our capabilities include generating highly accurate demand forecasts with confidence indicators that alert users on where to focus their time, as well as promotion scenario planning that allows users to quickly run what-next analysis and determine the optimal promotion plan. These capabilities are rooted in automating traditional planning processes and providing visibility across all key functions for a retail planning system that's ready for any future.

Learn more at [Kinaxis.com/retail](https://www.kinaxis.com/retail)



This publication is accurate as of the date published and may be updated by Kinaxis from time to time at its discretion. Copyright © 2021 Kinaxis Inc. All rights reserved. Kinaxis, the Kinaxis logo and RapidResponse are registered trademarks of Kinaxis Inc and its affiliates. All other brands and product names are trademarks or registered trademarks of their respective holders, and use of them does not imply any affiliation with or endorsement by them. 03.21