Deloitte.


# Retail planning

**2025**

# Overview

The purpose of this document is to showcase Deloitte's point of view on innovative approaches, trends, and technologies that can help drive efficient retail planning, helping to ensure agility and competitiveness in a dynamic market landscape.

# Retail supply chain

A typical retail supply chain encompasses all the steps involved in the procurement, processing, storage, and distribution of goods to end consumers. Suppliers provide fresh or packaged products to a processing plant that converts the product into finished goods. Products are then transported from processing plants to warehouses where they are stored until needed. These are then transported to the retail locations or directly to consumers, depending on the sales channel.

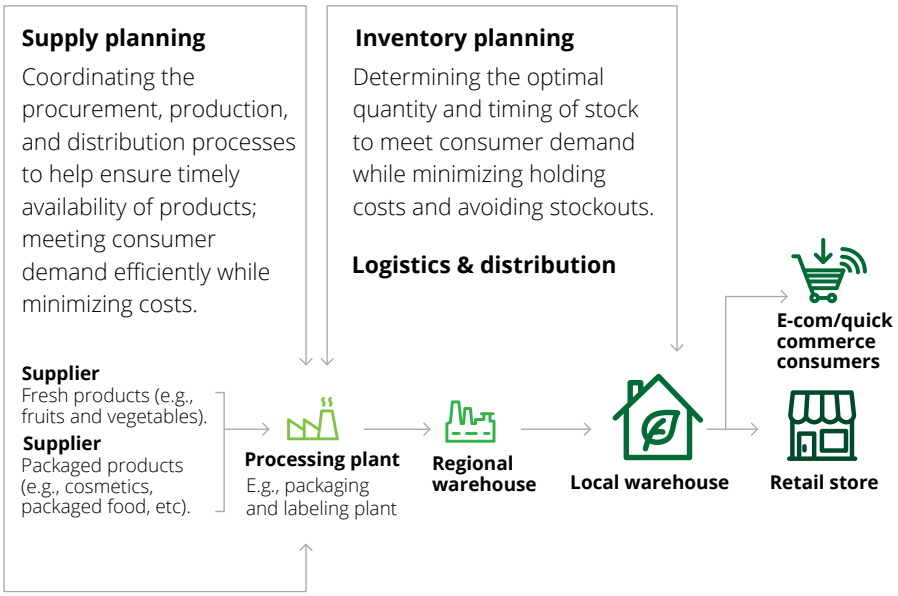
**Assortment planning**
Strategically selecting and managing a diverse range of products to meet consumer demand and maximize sales and profitability.

**Demand planning**
Forecasting consumer demand to help ensure enhanced inventory levels, reducing stockouts and overstock situations, and aligning supply chain operations with market needs.

**Supply planning**
Coordinating the procurement, production, and distribution processes to help ensure timely availability of products; meeting consumer demand efficiently while minimizing costs.

**Inventory planning**
Determining the optimal quantity and timing of stock to meet consumer demand while minimizing holding costs and avoiding stockouts.

**Logistics & distribution**




## There are a few nuances unique to retail planning:

**Forecasting for products**
Historical outbound shipment from warehouse-based forecast for fresh products rather than conventional statistical forecasting.

**Short-term planning**
Due to the volatile nature of factors affecting demand and the short shelf life of products, short-term planning becomes imperative in this sector.

**Shelf life**
Maximum life of a product for which it can be kept at a warehouse without expiring. It is primarily applicable for perishable products.

**Purge**
Phenomenon of a product becoming outdated, expired, damaged, or otherwise unsalable.

**Promotion-driven demand**
High frequency of promotions based on seasons, events, clearance, etc. shaping the demand.

**Cold supply chain**
Handling, transportation, and storage of temperature-sensitive products. This type of supply chain is crucial for products like perishable foods, pharmaceuticals, etc.

**Decant delays**
Delay associated with repacking goods received at warehouse into storage containers for storage and shipment to customers.

# Challenges in retail planning and Deloitte's approach

## Assortment planning

### Challenges

#### Product variety

- Presence of a variety of similar products (e.g., several SKUs of grapes based on colors).
- Variety of product sizes (units vs. weight based; e.g., beverages sold in packs of cans and fruits sold by weight).
- Significant tail of products (e.g., large number of low-volume items that can have a substantial impact on inventory management, sales, and profitability).

#### Data

- Data originating from multiple sources (e.g., sales, inventory, etc.) to make informed decisions.
- Reliance on surface-level data analysis resulting in lack of granularity, customer segmentation getting overlooked, and limited insight into causality.

#### Rationalization decisions

- Wide range of customer preferences (e.g., multicultural, organic) that change over time.
- Multiple sales channels with differing item performance (e.g., brick-and-mortar, e-commerce, m-commerce, social commerce, catalog sales, etc.).
- A need to engage all stakeholders (e.g., category teams, suppliers) for potentially thousands of items.

### Deloitte's approach

| Approach | Description |
|---|---|
| **Handle variety of retail products with advanced data analytics** | **Qualitative approach:** For strategically important categories with similar SKUs, take time to check the data and rationalize any duplicative low performers, taking account for all performance metrics (e.g., sales, margin, purge, etc).<br><br>**Handling different product size:** Ensure that the attributes for random weight items are normalized, and ensure customer data is up to date.<br><br>**Item sustainability:** Even if sales of a certain item may be low, having this item in the assortment could be crucial to retention of a certain type of customer.<br><br>**Basket size:** Leverage advanced KPIs such as average basket size by category, basket penetration rate, cross-sell ratio, etc. for tracking item's average basket size to gain deeper insights into customer behavior and product performance. |
| **Consider importance of sales channels** | **Product rationalization:** To cater to differing customer preferences between brick-and-mortar, e-commerce delivery, and e-commerce pickup, check performance across all channels before making a rationalization decision.<br><br>**Handling asymmetrical item performance:** If a given item has asymmetrical performance between channels, consider offering it only in that high-performing channel. |

Assortment rationalization is not an isolated project; it touches all the categories. Important stakeholders are brought along for the ride and help ensure the team performing the rationalization analysis knows all the necessary item details and context to make impactful decisions.

## Demand planning

### Challenges

**Statistical forecasting**

- Host of factors that influence demand and are in constant flux (e.g., product mix, channels, competition, geodemographics, promotional calendars & strategies).
- Integration of qualitative data into demand forecasts (e.g., brand perception, customer sentiment).
- Presence of data silos and lack of real-time data.
- Multiple channels for sales like distributors, e-commerce, and bulk buyers, which adds to the complexity in forecasting/demand planning process.

**Promotion lift planning and review**

- Frequent promotions leading to the need of better promotion lift estimation.
- Inability to accurately estimate lift from the promotions.
- Lack of a unified view of historical and future promotions.
- Frequent changes to promotions by merchandising even within frozen horizon or close to promotion's live date, leading to changes in forecast.

### Deloitte's approach

| Approach | Description |
|---|---|
| | **Statistical forecasting** |
| **Data-driven collaborative planning** | **Data-driven demand planning:** Leverage data from various sources to help algorithms analyze vast historical data, and detect subtle demand signals such as weather patterns, social media posts etc. that may elude traditional analysis.<br>**Demand sensing:** Actively monitor real-time market signals like customer feedback, social media sentiment, and point-of-sale data to adjust forecasts as needed.<br>**Collaborative planning:** Involve multiple stakeholders in the process, such as suppliers, distributors, sales teams, and marketing teams, to create a shared and accurate view of the demand. |
| | **Promotion lift planning and review** |
| **Determine historical promotional lift** | **Unified view:** Collate data from different sources to create a combined view of past promotions with relevant information (product, promotion timing, offer, promotion type, channel etc).<br>One way to determine historical promotion lift can be:<br>**Parameters:** Define promotion by a set of promotion parameters (timing, discount, type, etc).<br>**Statistical analysis:** Perform statistical analysis to determine seasonality and historical lift. Lift can be determined by comparing baseline demand for a product in a week against the actual sales that happened during that week. |
| **Generate future promotional lift** | **Use machine learning:** For future promotions, we can generate a lift based on regression analysis or any advanced machine learning model of historical lifts for similar promotions.<br>Suggested lift from the mechanism can then be used to review the lift coming from marketing team on exception basis. |


It is important for a planner to track and assess sales performance of a product during promotion duration as compared to the promotional forecast and make necessary tweaks in the forecast accordingly.

## Supply planning

### Challenges

#### Plan generation

- Unfamiliarity with solver configurations (i.e., optimization vs. heuristic).
- Lack of clear understanding of how solver parameters impact the supply plan.
- Inaccurate data on inventory and PO lead times.
- Frequent changes in execution plans.
- Inaccurate forecasts causing inventory issues.

#### Plan adherence

- Misalignment between planning and execution, leading to distrust and forward buys.
- Unforeseen production disruptions.
- Lead-time variability due to geopolitical factors, natural disasters, and supplier delays.
- Supplier quality issues causing stock holds.

#### Supplier collaboration

- Lack of timely visibility for suppliers on retailer forecasts and supply plans.
- Supply planners unaware of supplier constraints.
- Ensuring supplier allocations meet minimum order commitments.
- Suppliers not adhering to temperature control standards.

### Deloitte's approach

Many retailers often use multiple planning tools at different levels of supply chain leading to multiple plans. This can create a gap between the planning and execution teams. Furthermore, due to the lack of visibility into supplier constraints, retailers face challenges in predicting supply disruptions.

Our approach is focused on how the supply planning processes could be more integrated, how execution can closely adjust to disruptions, and how robust supplier relationships would ensure that retailers are consistently able to provide customers with the products they need.

| Approach | Description |
|---|---|
| **Integrated planning** | **For planning solutions (APS):** Use a centralized system to integrate demand, supply, inventory, and replenishment for full visibility and cross-functional collaboration.<br>**Concurrent planning:** Use real-time data for quick adjustments to the supply plan without waiting for the next cycle.<br>**Centralized planning process:** Centralize inventory and replenishment planning for both distribution centers and stores to align planning and execution.<br>**Scenario planning:** Simulate different supply options to ensure they are operationally feasible and financially viable. |
| **Responsive execution** | **Responsive demand-supply matching:** Detect demand and supply issues, align supply with business goals, and adjust short-term forecasts based on current constraints.<br>**One plan:** Ensure all teams follow and execute a unified plan.<br>**Closed-loop feedback:** Use execution feedback to adjust future supply plans. |
| **Effective supplier collaboration** | **Joint business planning:** Work with suppliers on strategy, forecasting, and inventory; consider supplier capacities for promotions; and get input on campaigns and displays.<br>**Digitized CPFR:** Use digital tools for real-time collaborative planning, forecasting, and replenishment across the supply chain.<br>**Aligned goals and KPIs:** Set and track shared goals and performance targets with suppliers, with clear consequences for not meeting them. |

## Inventory planning

### Challenges

#### Inventory management

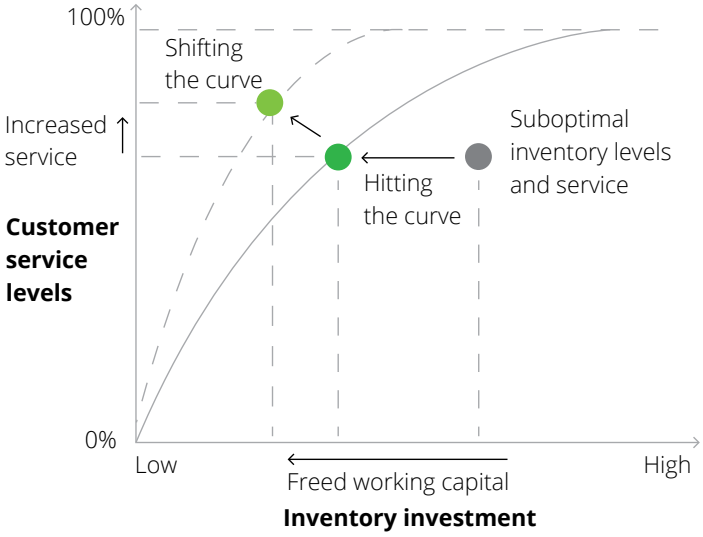
- Lack of inventory visibility.
- Lack of robust methodology to define inventory targets (i.e., experience-based adjustments made to inventory parameters such as reorder point, efficient order quantity [EOQ]) leading to excess or insufficient inventory.
- "One size fits all" approach to inventory planning without considering product segmentation.
- Inconsistent data stored in silos, leading to discrepancies in stock levels, incorrect product descriptions, outdated information, etc.

#### Supply chain capability

- High sales volatility leading to low forecast accuracy.
- High supplier variability in terms of lead time and quantity.
- Longer lead times from suppliers.
- Lack of integrated demand, supply, and financial models.
- Lack of real-time inventory monitoring and traceability.

### Deloitte's approach

Our approach to achieving high-quality inventory requires a focus on what is excess and insufficient, as well as insight into the underlying drivers for inventory.




#### Hitting the curve

Execute actions to address **inventory management-related issues** and **optimize inventory based on current capabilities**.

#### Shifting the curve

Execute actions to address **capability-related issues** and **improve the underlying need for inventory**.

| Approach | Description |
|---|---|
| | **Hitting the curve** |
| **Define inventory baseline** | **Baseline development:** Conduct stakeholder interviews; analyze data to establish baseline for current-state inventory.<br><br>**Target alignment:** Obtain leadership alignment on aspired targets and "to-be" state. |
| **Deploy inventory analytics to identify excess/ insufficient inventory** | **Product segmentation:** Segment products based on units sold, value, velocity, etc.<br><br>**Establish target inventory levels:** Define target inventory based on product segments using parameters like EOQ, buffer stock, forecast, coverage days, and shelf life.<br><br>**Determine excess/insufficient inventory:**<br><br>• If the inventory on hand exceeds maximum target inventory, flag that as excess.<br><br>• If inventory on hand is less than minimum target inventory, flag that as insufficient. |
| **Potential resolution steps** | We can reduce excess inventory using measures such as<br><br>• Flash sales<br><br>• Volume discounts<br><br>• Product bundling<br><br>We can remedy insufficient inventory issues by:<br><br>• Modifying safety levels (based on parameters such as fill rate, demand variability, supply variability, lead time).<br><br>• Implementing real-time tracking and automated reordering.<br><br>• Strengthening supplier base by adding backups. |
| | **Shifting the curve** |
| **Scenario development** | **Inventory driver validation:** Validate the calculation methodology and baseline of key drivers of inventory such as forecast accuracy, supplier variability, lead time, lot size, and replenishment frequency.<br><br>**"What-if" scenarios:** Develop a list of "what-if" scenarios, execute them, and assess the size of the prize based on impact of these drivers on inventory improvement. |
| **Identify and act on high-priority inventory opportunities** | **Improvement levers identification:** Prioritize the drivers to yield inventory improvement based on the scenario analysis.<br><br>**Execution:** Define North Star for the identified drivers, and develop roadmap and business case to realize capability enhancement for these drivers.<br><br>**Monitoring and sustenance:** Monitor progress to inventory objectives; and develop ongoing process, governance, and cadence to track and report KPIs for the identified capabilities. |

## Supply planning

### Challenges

#### Infrastructure

- Suboptimal DC locations leading to increased transportation costs, longer lead times, and inefficiencies in reaching target markets.
- Ad hoc shipments scheduling resulting in cost overruns from rush orders.
- Inefficient redistribution center operation causing increased stock transfers and cost implications.
- Increased handling costs, storage issues, and delays in processing returns due to challenges in reverse logistics.

#### Shifting focus

- Rising customer expectations and the shift from B2B to B2C.
- Impact of asset-light competitors disrupting last-mile delivery and transforming business models.
- Low adoption of technology-enabled solutions and insufficient technical expertise.
- Limited supply chain visibility due to disconnected ERPs and planning systems.

#### Tax and regulations

- Lack of timely visibility for suppliers on retailer forecasts and supply plans.
- Supply planners unaware of supplier constraints.
- Ensuring supplier allocations meet minimum order commitments.
- Suppliers not adhering to temperature control standards.

### Deloitte's approach

Our approach is focused on improving the overall cost of ownership. The cost component can be divided into two parts: (1) warehousing operations and (2) freight operations (inbound and outbound).

There are some value levers under each component that can help us deal with the challenges.

| Approach | Description |
|---|---|
| **Warehousing operations** | **Warehouse location strategy:** Optimal number and location of warehouses (based on greenfield and scenario analysis) to limit "over service" and high fixed costs.<br>**Parts segmentation and policies:** Parts segmentation that considers demand velocity, volatility, and volume is foundational to tailoring network and deployment policies to segments.<br>**Inventory stocking strategy:** Balance increasing stock availability vs. reducing stocking costs while addressing goals of working capital and national fill. |
| **Freight operations (inbound and outbound)** | **Mode and carrier utilization analysis:** Right mode mix (intermodal vs. truck) and carrier mix for improved carrier utilization and compliance.<br>**Flow path analysis:** Best path (lane) for flow of products from supplier to dealer and reduce number of unplanned moves or internal transfers that can add costs.<br>**Freight sourcing opportunities:** Optimize the mix of own vs. 3PL fleet and minimize the cost of transportation by benchmarking against market prices through sourcing events. |

# Industry trends and cutting-edge technologies

| | People | Process | Technology |
|---|---|---|---|
| **Assortment planning** | • Sustainability and responsibility | • Hyperlocalization<br>• Personalized assortments | • Use of AI/ML for assortment planning<br>• Assortment simulations<br>• Real-time data and insights<br>• Cloud-based platform |
| **Demand planning** | • Personalized promotion planning | • Centralized promotion planning<br>• Use of external data points for demand sensing and refining demand forecast<br>• Measuring true value of promotion process | • Use of machine learning for predicting demand and promotion lift<br>• Advanced analytics and machine learning to evaluate 'halo' and "cannibalization" effects<br>• Promotion simulations |
| **Supply planning** | • Sustainability and ethical sourcing<br>• Shift toward customization and personalization | • E-commerce integration<br>• Nearshoring and regionalization | • Increasing transparency using blockchain or other similar technologies |
| **Inventory planning** | • Shift in skill set with strong analytical abilities and understanding of technology | • Increased supplier collaboration<br>• Demand-driven replenishment (DDR)<br>• Day/wave replenishment<br>• Process automation<br>• Obsolescence management (in the semiconductor industry) | • Cloud-based inventory system<br>• AI/ML based demand sensing platform<br>• 24/7 inventory visibility<br>• Generative AI |
| **Logistics and distribution** | • Shift toward sustainable logistics<br>• Increase in online retail volume globally | • Shift toward multimodal transportation | • Platform-based logistics solutions for supply chain optimization<br>• RFIDs and IoT sensors for shipment tracking<br>• Digital freight marketplaces<br>• Last-mile innovation |

## People perspective

### Sustainability

There is a push on sustainability from consumers. Companies tackle these challenges through ethical and sustainable sourcing, adopting environmentally friendly logistics options like fleet electrification. Companies that invest in sustainability witness 11% higher revenue, 30%–50% saving in energy consumption compared to their peers

### Customization and personalization

Customers often prefer personalized products. Demand and inventory planning can also become difficult for a wide range of products. Retailers often practice personalization to handle these challenges. Companies see a 20% uplift in sales through personalization

### Shift in skills requirements

Shift toward data-driven decision-making using advanced analytics, predictive modeling, and AI to optimize stock levels, etc. requires a more skilled workforce with strong analytical abilities. AI-skilled workforce believes it could raise efficiency by as much as 66%

### Increasing online buyers

Companies have enhanced their logistics solutions to make them more efficient and flexible to handle a high volume of small orders due to increased online shopping. A study found that 54% of consumers are more likely to shop with a retailer that offers better delivery options

## Process perspective

### Hyperlocalization and personalized assortments

Consumer preferences often vary as we move from one locality to another, and thus arises the need to ensure availability by localizing and personalizing the assortment. Optimized assortments can lead to a 2%–5% increase in sales and 5%–10% boost in gross margins for retailers

### Centralized promotion planning

Promotional campaigns have a significant impact on product sales, but most merchants are unable to measure this impact, which can result in either overstocking or understocking. This approach enables cross-functional visibility and promotion analysis, which can in turn result in 4%–8% profit, a 15% increase in incremental sales

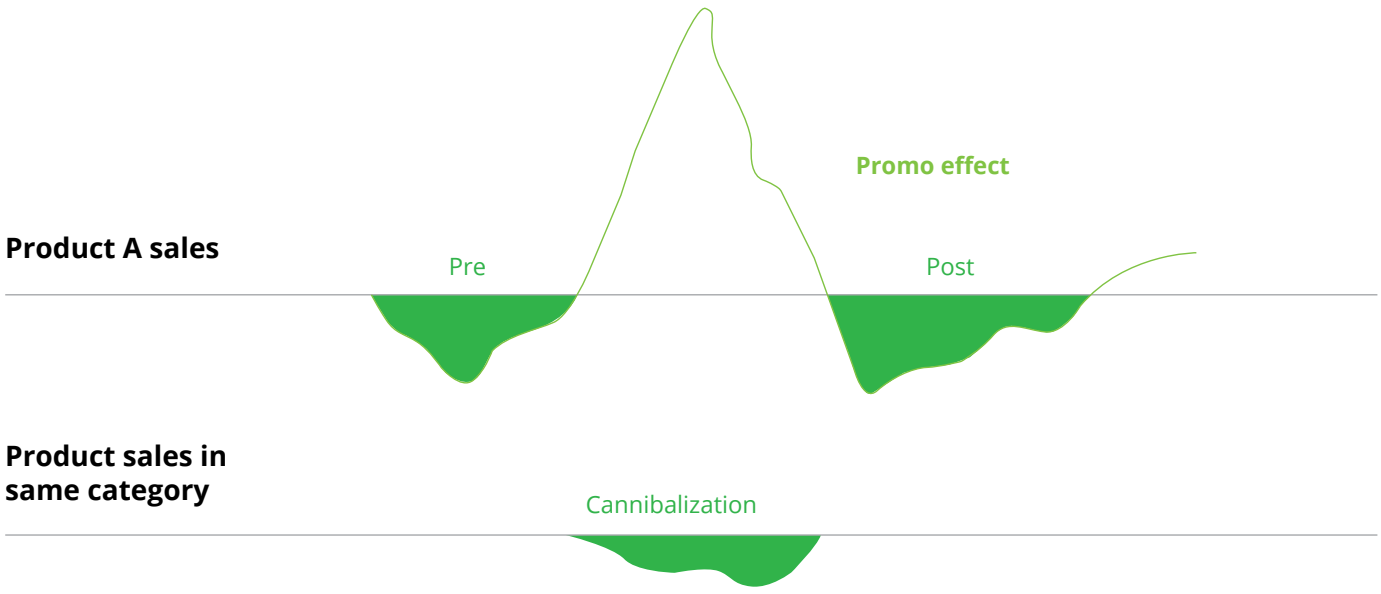
### Use of external data points for demand sensing and refining demand forecast

Retailers often overlook the impact of external factors (political, social, and seasonal) on demand. It is crucial to consider these elements when forecasting demand, planning supply, and inventory. A consumer goods major was able to decrease safety stock by more than 30% using demand sensing

### Measuring true value of promotion process

Retailers can deploy a sophisticated promotion solution to estimate baseline sales, calculate vendor funding, and account for key effects like switching, stockpiling, and the halo effect, ensuring a reliable profit or loss outcome. A true calculation and automated analysis of past promotions can result in 3%–6% increase in profit margins

## Measuring true value of promotion process



### E-commerce integration

This can help address challenges around managing inventory across multiple channels, coordination with multiple suppliers, and lack of real-time data for decision-making. Businesses with an online presence can experience a growth of 15-50% relative to businesses that aren't online

### Nearshoring and regionalization

Given the challenges around supply chain disruptions due to geopolitical conditions, long lead times, and complicated inventory management, there has been a tremendous shift in favor of locally manufactured products. Nearshoring can lead to cost savings of up to 30% resulting from reduced transportation and labor costs

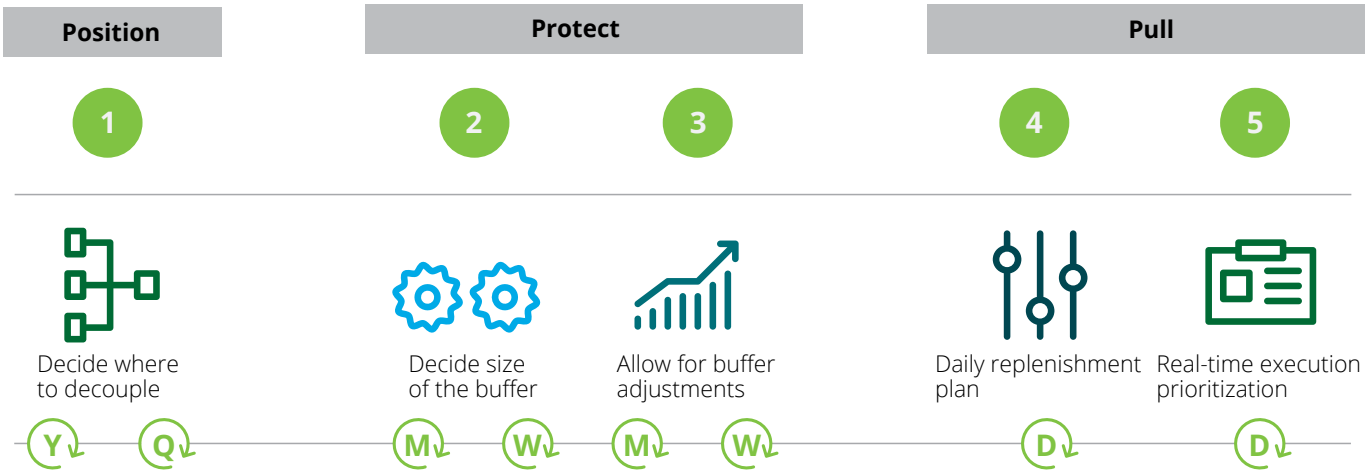
### Increased supplier collaboration

This lever can address the challenge of inaccurate inventory forecast, variability in lead times, and suboptimal inventory at suppliers. Organizations that maintain strong supplier relationships face 20% fewer supply chain disruptions

### Demand-driven replenishment

This approach aims to align inventory levels more closely with real-time sales data, reducing excess stock and minimizing stockouts, thereby improving efficiency and customer satisfaction. Customers implementing this methodology have reported average decreases of 30% in inventory with service levels above 98%

## Demand-driven replenishment




### Day/wave demand replenishment

Involves restocking inventory based on daily or wave-specific demand patterns to tackle challenges such as maintaining inventory levels to meet fluctuating demand without overstocking or stockouts and demand variability. (Highly suitable for perishable and slow-moving SKUs.)

### Process automation

Aids reduction of human-induced errors (e.g., automated triggers can be set up for reordering beyond a particular set threshold, minimizing the chance of back orders or stockouts. Companies using automation cut process costs by 25%–40% and saw 50%–75% faster processing times

### Multimodal transportation

Multimodal transportation has significantly increased in popularity due to the decreased costs per vehicle, shortened freight handling times, and fewer customs formalities. Multimodal transportation can reduce logistics costs by up to 30% due to optimized routing and better utilization of different transportation modes

## Technology perspective

### Use of artificial intelligence, Generative AI, and machine learning

Challenges around inaccurate demand forecasting, imbalanced inventory levels, varying customer preferences, gauging "halo" and "cannibalization" effects of promotions, and route optimization to reduce overall cost-to-serve can be mitigated by utilizing ML models and AI algorithms. AI-enabled supply chain management helps early adopters reduce logistics costs by 15%, inventory levels by 35%, and service levels by 65%, as compared to slower-moving competitors

### Use of cloud-based platforms

This helps retailers address infrastructural efficiency, real-time data access, supplier collaboration, advanced analytics, and optimization of logistics and storage. Retailers using cloud-based platforms see a 20%–30% reduction in supply chain costs and a 25%–30% improvement in inventory management efficiency

### 24/7 inventory visibility

Real-time product visibility can help overcome situations of overstocking or stockouts due to inaccurate or delayed inventory data, inaccurate lead time, and lack of visibility into supplier inventory. Item-level tagging, when implemented properly, can increase inventory accuracy from 63% to 95%

### Simulations

With the help of virtual simulations, retailers can save time and money as the impact of category, promotions, campaign scenarios, or merchandising assortment decisions can be quantified without actual implementation. Simulations help achieve reduced cost of testing new ideas, an increase of 3% sales within days

### Increasing transparency using blockchain

Retailers can safeguard their businesses from the challenges of traceability, fraud, and counterfeiting. Additionally, blockchain ensures product authenticity and reliability by providing a transparent record of a product's journey from origin to destination. Retailers reduced supply chain fraud by 30%–40% using blockchain technology in their supply chain.

### Real-time data and insights

This trend helps retailers to gain insights on external factors impacting demand, align inventory levels more closely with real-time sales data, reduce excess stock, and minimize stockouts. Retailers harnessing real-time data analytics can slash their inventory costs by up to 15% and increase their sales by up to 10%

### IoT for cold chain visibility

Inventory visibility, compliance, temperature, and location monitoring can be improved by leveraging IoT devices—especially in cold chains. Companies implementing IoT in their cold chain operations have reported up to a 40% reduction in spoilage and waste (Source: Deloitte Insights).

### Predictive analytics for cold chain maintenance

This help retailers avoid unforeseen breakdowns of critical equipment, reducing downtime and improving resource utilization (e.g., cooling/heating equipment are operationally crucial for temperature sensitive products). AI-driven predictive maintenance can help retailers decrease cold equipment stoppages by 30% and improve equipment life spans by 20%–40%

### Digital freight marketplaces

Digital networks allow shippers and carriers to connect and arrange for transportation. They help shippers to find carriers more easily and help carriers find more business opportunities. Digital freight marketplaces can reduce transportation costs by up to 15%–20% by optimizing route planning, reducing empty miles, and increasing load-matching efficiency

### Last-mile delivery innovations

Innovations in last-mile delivery such as drone deliveries, crowd-sourced delivery models, and smart lockers are changing the outbound logistics in the retail segment, making it swifter and more trustworthy. These can lead to up to a 15% increase in customer satisfaction, 40% reduction in manual overhead, and 25% increase in workforce utilization

# Get in touch

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