



# Distribution and Inventory Management in Supply Chain

Supply chain management relies heavily on efficient distribution and inventory management. Here's a quick dive into some key points around these topics.



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# Why Distribution and Inventory Matter

1

## Meeting Customer Expectations

Accurate and timely delivery of goods is essential to customer satisfaction.

2

## Managing Costs

Optimizing inventory levels, transportation modes, and overall supply chain performance reduces costs.

3

## Increase Profitability

Effective distribution and inventory management can improve both revenue and profitability.

# Key Metrics for Distribution and Inventory

## Inventory Turnover

Number of times inventory is sold and replaced in a given time.

## Fill Rate

Percentage of orders that are filled completely and on time.

## Order Accuracy

Percentage of orders that are fulfilled correctly.

## Stockout Rate

Percentage of time inventory is out of stock when demand arises.



# Challenges and Solutions



## Transportation Delays

Optimizing transportation routes and modes can mitigate delays and reduce costs.



## Labor Shortages

Investing in automation and technology can reduce the dependency on manual labor.



## Inefficient Processes

Streamlining processes and implementing technology like barcode scanners and IoT devices can increase efficiency.



## Inventory Accuracy

Automating inventory tracking and regular physical counts can ensure accuracy.

# Technology and Automation

## Automated Guided Vehicles

These vehicles are programmed to transport goods within a warehouse without human intervention, increasing accuracy and speed.

1

## Rifle Picking Technology

This new technology uses AI to scan and pick orders, leading to faster and more accurate order fulfillment.

2

3

## IOT Devices for Inventory Tracking

Inventory tracking devices like RFID tags and sensors can enable real-time tracking and reporting.

# Successful Case Studies

## Amazon

Amazon's distribution centers utilize advanced automation technology and sophisticated algorithms to streamline their supply chain processes.

## Zara

Zara emphasizes vertical integration, enabling it to respond quickly to market trends and offer a fast, flexible supply chain.

## Walmart

Walmart's "vendor-managed inventory" program has significantly decreased inventory levels and improved product availability while maintaining low prices.

# Conclusion and Next Steps

1

## Continuous Improvement

Supply chain management is an ongoing process that requires continuous analysis and improvement for maximum efficiency and profitability.

2

## Investing in Technology

Investing in the latest technology and automation can result in cost savings and increased performance.

3

## Collaboration

Collaboration among suppliers, partners, and stakeholders can lead to better decision-making and improved overall supply chain management.