

Integrated Supply Chain Design

This presentation explores the principles of integrated supply chain design, a holistic approach that aims to optimize efficiency and resilience in a globalized and interconnected world.



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Defining Supply Chain Integration: A Holistic Approach

Beyond Siloed Operations

Integrated supply chains break down traditional departmental boundaries, fostering collaboration across procurement, production, distribution, and customer service.

Shared Information and Visibility

Real-time data sharing enables better decision-making, leading to optimized inventory levels, faster response times, and improved customer satisfaction.







Key Drivers for Integrated Supply Chain Design

Enhanced Efficiency

Streamlined processes and reduced waste lead to lower operating costs and faster delivery times.

Increased Agility

Rapid adaptation to changing market conditions and customer demands is crucial for success.

Improved Customer Satisfaction

Consistent product availability, shorter lead times, and responsive customer service enhance customer experience.

Enhanced Resilience

Diversified supply sources and proactive risk management minimize disruptions and ensure business continuity.

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Designing an Integrated Supply Chain: A Step-by-Step Guide

Define Goals and Objectives

Clearly outline the desired outcomes, such as increased efficiency, agility, or resilience.

Conduct a Supply Chain Assessment

Identify current strengths and weaknesses, pinpoint areas for improvement.

Develop an Integration Strategy

Choose the best approach based on the specific goals and challenges.

Implement and Test Solutions

Deploy the chosen strategies and carefully monitor their effectiveness.

Monitor and Optimize

Continuously evaluate performance and adapt the design for continuous improvement.

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Technology's Role in Supply Chain Integration

Cloud Computing

Provides scalable storage and processing power for data-driven decisions.



Data Analytics

Extracts valuable insights from real-time data to optimize operations.

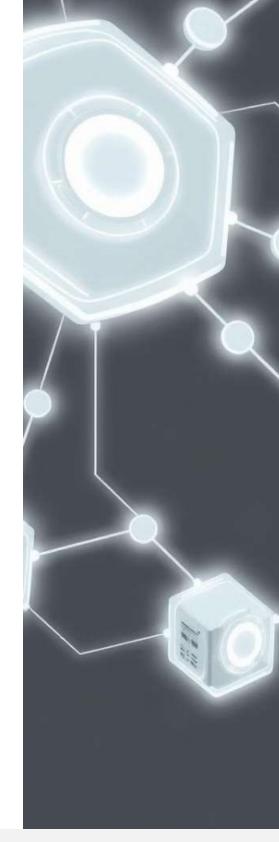
Internet of Things (IoT)

Connects devices and sensors for real-time monitoring and control.



Artificial Intelligence (AI)

Automates tasks, predicts demand, and improves efficiency.



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Case Study: Successful Implementation of Integrated Supply Chains



Reduced Inventory Costs

A leading retailer streamlined its supply chain, achieving a 20% reduction in inventory costs through better forecasting and demand planning.



Improved On-Time Delivery

An automotive manufacturer implemented real-time tracking and visibility, resulting in a 15% improvement in ontime delivery rates.



Increased Customer Satisfaction

A consumer electronics company achieved a 95% customer satisfaction rate by providing faster delivery and personalized service.



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Overcoming Challenges in Integrated Supply Chain Design

7	Resistance to Change Overcoming resistance to change, particularly from employees accustomed to traditional ways of working	
2		ation and Sharing ess data flow across multiple systems and departments, often with va y.
3		Technology Implementation and Management Selecting, implementing, and managing the right technology solution platforms, analytics tools, and IoT devices.
4		Cybersecurity Risks Protecting sensitive data and systems from cyber increasingly common in interconnected supply

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varying levels of maturity

itions, including cloud

berattacks, which are ly chains.

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Profitability, market share, customer loyalty

Supply Chain KPIs

Inventory turnover, delivery lead times, customer service levels

Operational Metrics

Production efficiency, cost per unit, on-time delivery rate

Process Indicators

Cycle time, defect rate, supplier performance



Future Trends in Integrated Supply Chain Design

Artificial Intelligence (AI)

Al is rapidly transforming supply chain management. It is enabling more accurate forecasting, demand planning, and dynamic route optimization. Al-powered systems can also analyze real-time data from sensors and IoT devices to detect and prevent potential disruptions.

Blockchain Technology

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Blockchain technology is revolutionizing supply chain transparency and traceability. It creates a secure and immutable record of transactions, enhancing trust and accountability across the supply chain.

Sustainable Supply Chains

Sustainability is increasingly important for businesses. Companies are seeking ways to reduce their environmental impact and support ethical sourcing practices throughout their supply chains.

Hyper-Personalization and Customization

Consumers expect more personalized experiences. Integrated supply chains are adapting to meet these demands by offering tailored products and services based on individual preferences.





Conclusion: Building a Future-Ready Supply Chain

Integration is Key

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Break down silos, foster collaboration.

Technology is a Catalyst

Embrace AI, blockchain, and IoT.

Focus on Resilience

Diversify, build flexibility, and adapt.

Data Drives Success

Leverage insights for better decision-making.

Continuous Improvement

Monitor, adapt, and evolve.

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