23BAE743 - LOGISTICS AND SUPPLY CHAIN MANAGEMENT

UNIT - 5 SCM Performance Drivers and Forecasting

Guess the topic

Drivers of Supply Chain Performance

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Drivers of Supply Chain Performance

Supply chain performance is crucial for any business' success. It ensures goods reach consumers efficiently and cost-effectively. By optimizing its supply chain, a company can improve customer satisfaction, reduce costs, and gain a competitive advantage.

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Understanding the Supply Chain Landscape

Interconnected Network

The supply chain involves a complex network of interconnected parties, each with a specific role to play.

These parties include suppliers, manufacturers, distributors, retailers, and consumers.

Information Flow

Effective communication and information sharing are vital for seamless operations.

Real-time data exchange enables efficient planning, inventory management, and delivery.

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Optimizing Inventory Management

Demand Forecasting

Accurate demand forecasting is crucial to ensure the right products are available at the right time.

Inventory Control

Effective inventory control systems track stock levels and identify potential shortages or excesses.

Just-In-Time (JIT)

JIT minimizes inventory holding costs by receiving materials only when needed for production.

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Leveraging Supplier Relationships

Collaborative Partnerships

Strong supplier relationships foster open communication, joint problem-solving, and shared goals.

Quality Assurance

Reliable suppliers ensure consistent product quality, minimizing defects and customer dissatisfaction.

Innovation and Growth

Working with innovative suppliers can unlock new opportunities for product development and competitive advantage.

Cost Optimization

Long-term partnerships often lead to cost savings through volume discounts, streamlined processes, and improved efficiency.

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Enhancing Logistics and Transportation

1 **Transportation Modes**

Choosing the right transportation modes – road, rail, air, or sea – optimizes delivery speed and cost based on distance, product type, and urgency.

2 **Route Optimization**

Efficient route planning reduces travel time, fuel consumption, and delivery delays, leading to cost savings and faster delivery.

3 **Real-Time Tracking**

Tracking shipments in real-time provides visibility into the location and status of goods, allowing for proactive problem-solving and improved delivery accuracy.

4 **Last-Mile Delivery**

Optimizing the final leg of the journey – delivery to the end customer – is critical for timely and efficient delivery.

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Adopting Emerging Technologies

Internet of Things (IoT)

1

IoT connects devices and sensors across the supply chain for real-time data capture and analysis.

2

Artificial Intelligence (AI)

AI algorithms optimize inventory management, demand forecasting, and route planning.

Blockchain

3

Blockchain provides secure and transparent data tracking, improving supply chain visibility and trust.

4

Cloud Computing

Cloud-based platforms enable collaboration, data storage, and analytics, enhancing supply chain agility.

Robotics and Automation

5

Robotics and automation streamline warehouse operations, improve efficiency, and reduce labor costs.

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Fostering Demand Forecasting Accuracy

1 **Historical Data Analysis**

Analyze past sales data to identify patterns, seasonality, and trends.

2 **Market Research and Analysis**

Conduct market research to understand consumer behavior, competition, and economic factors.

3 **Statistical Modeling**

Apply statistical models to forecast future demand based on historical data and market insights.

4 **Regular Review and Adjustment**

Monitor forecasts against actual sales data, adjust models, and improve accuracy over time.

9

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Streamlining Order Fulfillment

1

Order Placement

Customers place orders through various channels, including online platforms or physical stores.

2

Order Processing

Orders are received, verified, and entered into the system for processing.

3

Inventory Allocation

Inventory is allocated to fulfill the order, ensuring product availability.

4

Picking and Packing

Products are retrieved from inventory, packaged, and prepared for shipping.

5

Shipping and Delivery

Orders are shipped using the selected transportation mode and delivered to the customer.

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Improving Supply Chain Visibility

95%

Real-Time Tracking

Track shipments in real-time, providing precise location and status updates.

30%

Reduced Delays

Proactive issue identification and resolution, leading to faster deliveries.

20%

Inventory Optimization

Optimize inventory levels, minimizing waste and maximizing efficiency.

Driving Continuous Improvement

1

Data-Driven Insights

Regularly collect and analyze data to identify areas for improvement.

2

Performance Metrics

Define clear performance metrics to track progress and measure success.

3

Process Optimization

Continuously review and streamline processes to eliminate waste and improve efficiency.

4

Employee Empowerment

Encourage employee participation in identifying and implementing improvements.

5

Collaboration and Innovation

Foster a culture of collaboration and innovation to drive ongoing improvement.

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THANK YOU

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