

23BAE743 Logistics and Supply Chain Management
Question Bank - Unit 5
2 Mark Questions & Answers, 16 Mark Questions

SCM PERFORMANCE DRIVERS AND FORECASTING

2 Mark Questions & Answers

Part –A

1. What role does location play in supply chain performance?
Location impacts supply chain performance by affecting lead times, transportation costs, and inventory management. A strategically placed facility can reduce operational costs and enhance customer satisfaction.
2. How does the proximity of suppliers influence supply chain efficiency?
Proximity to suppliers reduces transportation costs, lead times, and risks of supply disruptions, improving the overall responsiveness of the supply chain.
3. How does inventory management affect supply chain performance?
Effective inventory management ensures that products are available when needed while minimizing holding costs, leading to a more efficient and responsive supply chain.
4. What is the impact of high inventory levels on a supply chain?
High inventory levels can lead to higher holding costs, increased risk of obsolescence, and reduced cash flow, while potentially improving service levels.
5. How does transportation affect supply chain performance?
Transportation affects costs, delivery speed, and reliability. The choice of transportation mode influences the supply chain's efficiency, cost structure, and customer satisfaction.
6. Why is transportation optimization crucial for global supply chains?
Optimizing transportation reduces costs, improves delivery reliability, and enhances speed, which is critical for managing global supply chains effectively.
7. How does pricing influence supply chain decisions?
Pricing decisions affect demand forecasting, production schedules, and inventory levels. Competitive pricing strategies can drive higher demand and influence the overall supply chain performance.
8. What is the relationship between pricing strategies and inventory management?
Pricing strategies, such as discounts or premium pricing, can influence customer demand, impacting how much inventory needs to be stocked or replenished.

9. How does information sharing impact supply chain performance?

Information sharing enhances visibility, coordination, and decision-making across the supply chain, leading to reduced lead times, lower costs, and improved service levels.

10. Why is real-time information crucial for effective supply chain management?

Real-time information helps managers respond quickly to changes in demand, production issues, or disruptions, ensuring that the supply chain remains efficient and responsive.

11. How does sourcing strategy affect supply chain performance?

Sourcing strategies determine supplier relationships, cost structures, and quality control, all of which influence the efficiency, cost-effectiveness, and flexibility of the supply chain.

12. What are the benefits of strategic sourcing in the supply chain?

Strategic sourcing helps build long-term supplier relationships, reduces costs, ensures quality, and improves the flexibility of the supply chain to adapt to changing market conditions.

13. What is Green Supply Chain Management (GSCM)?

GSCM integrates environmental considerations into supply chain management by focusing on reducing carbon footprints, waste, and improving sustainability across all supply chain activities.

14. Why is sustainability important in supply chain management?

Sustainability reduces environmental impact, enhances brand reputation, and meets regulatory requirements, while potentially lowering long-term operational costs through energy savings and waste reduction.

15. What are the key benefits of implementing Green Supply Chain Management?

Key benefits include reduced environmental impact, cost savings through resource efficiency, improved regulatory compliance, and enhanced brand image, leading to competitive advantages.

16. How does Green Supply Chain Management impact supplier relationships?

GSCM encourages collaboration with suppliers to meet sustainability standards, leading to improved long-term partnerships and shared innovation in eco-friendly practices.

17. What is the role of a forecasting system in supply chain management?

A forecasting system helps predict future demand, enabling better inventory planning, resource allocation, and production scheduling to meet customer needs efficiently.

18. Describe the framework for an effective forecasting system.

An effective forecasting system includes data collection, analysis of historical data, selection of forecasting models, integration with inventory and production systems, and continuous review for accuracy.

19. What is the difference between qualitative and quantitative forecasting methods?

Qualitative methods rely on expert judgment and subjective information, while quantitative methods use historical data and statistical techniques to make predictions.

20. Why are time-series forecasting methods commonly used in supply chains?

Time-series methods analyze historical data to identify patterns and trends, providing reliable predictions for inventory, production, and demand planning.

21. How do you choose the appropriate forecasting technique for a supply chain?

The choice depends on the type of product, availability of historical data, lead time, and the required accuracy. Complex products with volatile demand may require sophisticated models, while simpler products may use basic techniques.

22. What factors should be considered when selecting a forecasting method?

Factors include data availability, forecast accuracy, lead time, the level of demand variability, and the cost of implementing and maintaining the method.

23. Why is measuring forecasting error important?

Measuring forecasting error helps assess the accuracy of forecasts, identify areas for improvement, and adjust supply chain strategies to avoid stock outs or overstocking.

24. What is the Mean Absolute Percentage Error (MAPE) in forecasting?

MAPE is a common method for measuring forecast accuracy, calculating the average of absolute percentage errors between predicted and actual values.

25. What is collaborative forecasting, and how does it improve supply chain efficiency?

Collaborative forecasting involves sharing demand data between suppliers, manufacturers, and retailers to create more accurate forecasts, reduce stock outs, and improve inventory management.

26. How does collaboration with suppliers enhance forecasting accuracy?

Supplier collaboration allows for sharing real-time data, aligning production schedules, and reducing demand uncertainty, leading to more accurate forecasts.

27. How does cross-functional integration affect forecasting in a supply chain?

Cross-functional integration ensures that departments like marketing, sales, and operations contribute to the forecast, leading to more accurate and holistic demand predictions.

28. Why is it essential to involve sales and marketing teams in forecasting?

Sales and marketing teams provide insights into customer trends, promotions, and market conditions, which can significantly improve the accuracy of demand forecasts.

29. What challenges are typically faced in forecasting for supply chain management?

Challenges include data inaccuracy, demand variability, lead-time uncertainty, and the difficulty of accounting for external factors such as economic changes and competitor actions.

30. How can seasonality affect forecasting accuracy?

Seasonality introduces regular fluctuations in demand, requiring forecasting models to account for recurring patterns, which can be challenging but crucial for inventory and resource planning.

Part – B

1. Analyze the key logistics drivers that affect supply chain performance, focusing on location, inventory, and transportation. How do each of these drivers contribute to the overall efficiency and effectiveness of a supply chain?
2. Evaluate the impact of cross-functional drivers—pricing, information, and sourcing—on the performance of a supply chain. How do these drivers interact with one another to affect supply chain decisions?
3. Discuss the principles of Green Supply Chain Management (GSCM) and explain how it can enhance sustainability within supply chains. What are the main challenges faced by organizations in implementing GSCM, and what strategies can be adopted to overcome these challenges?
4. Describe the framework for a forecasting system and the key components that need to be considered when designing an effective forecasting model. How the accuracy of does forecasts impact supply chain decision-making, and what steps can be taken to improve forecast accuracy?
5. Explain the different types of forecasting techniques available for supply chain management. Compare and contrast qualitative and quantitative forecasting methods and discuss how a company can choose the most appropriate technique based on its specific needs and data availability.
6. Evaluate the role of logistics drivers—specifically location, inventory, and transportation—in influencing supply chain performance.

- 7.** Analyze the importance of cross-functional drivers, namely pricing, information, and sourcing, in shaping the overall effectiveness of a supply chain. Discuss how these drivers are interrelated and how a lack of coordination between departments (e.g., finance, marketing, procurement) can hinder supply chain performance.
- 8.** Green Supply Chain Management (GSCM) focuses on minimizing the environmental impact of supply chain activities while improving operational efficiency. Discuss the key principles of GSCM and evaluate the potential benefits and challenges associated with its implementation.
- 9.** Define the key components of a forecasting system in the context of supply chain management. Discuss the importance of each component (such as data collection, data analysis, and decision-making) in ensuring that forecasts are accurate and reliable.
- 10.** Discuss the different types of forecasting techniques used in supply chain management, categorizing them into qualitative and quantitative methods.