Warehousing has a mission-critical function in most supply chains, and storing inventory has many strategic implications for the business. Inventory-holding decisions play an essential role in smoothing variations in demand, enabling economies of scale in production, achieving savings through bulk-purchasing, allowing transportation tradeoffs, buffering seasonal demand fluctuations, insuring against loss of production time, and so on. When sudden changes in demand require effective response, holding inventory at a “de-coupling” point is a crucial element in lean strategy, while holding it at a point close to the customer is a crucial element in agile strategy. But warehouses serve a greater purpose than simply holding stock. They can be cross-docking and consolidation centers, which serve to reduce transportation costs by rationalizing loads; assembly facilities, where products can be customized to meet final demand; or, returned goods centers, with important environmental or customer-service functions.

This week your research and reading will be concerned with factors affecting the optimal level of product availability in a business. You will also explore the crucial role of technology in helping inventory managers achieve balance between the costs of over- and under-stocking inventory.

Week 5 > Learning Outcomes

By the end of this week, you will be able to:

- Assess strategic issues affecting the implementation of global logistics
- Evaluate the effectiveness of different strategies for inventory management and warehousing
- Assess the role of technology in improving logistics performance and maximizing efficiency in inventory management
You are listening to the Podcast version of the course. You can listen to a summary of the written course materials and view or listen to the media resources. You can use the Podcasts to get familiar with the material when it's not convenient to be at your computer. You should still plan to read, study, and prepare your assignments as you would in a traditional course.

During Week 5, you will use a variety of resources including selections from the course text, journal articles, and audio versions of key readings. Audio versions of the key readings include those articles used for completing both Discussion Questions and Applications.

This week, you refer to Chapters 12-14 of your course text, *Handbook of Global Supply Chain Management*, identified in your Syllabus and in Resources under Week 5, which examine the management of inventory, transportation, and warehousing within the context of a global supply chain. This week’s text readings will explore different strategies for managing supply chain inventory, strengthening relationships between carriers and shippers, and enhancing the overall management of an organization’s supply chain.

This week’s journal article, “What is the ‘Right’ Inventory Management Approach for a Purchased Item?,” examines four basic approaches for resolving problems associated with inventory management, and then goes on to demonstrate the application of these approaches in multiple situations. This resource, which will be reviewed more in depth in a resource audio summary, may give you ideas on how approach your research for this week’s Discussion Question.

Let’s outline some of the individual resources that you will use in this week’s activities.
You will now hear a summary of the following reading that will help in completing your assignments for the week.

Chapter 12, “Inventory Management,” of *Handbook of global supply chain management*.

Chapter 12 of the *Handbook of Global Supply Chain Management* outlines the importance of effective inventory management to an organization’s success. The ability to achieve a balance between the costs and benefits of inventory management is critical. This chapter reviews the most widely applied models for planning and controlling independent inventory. These pages also cover the variety of emerging supply chain inventory strategies that are being implemented by firms to handle the complexities of increased product variety, the increased demand for improved customer service, and the rapidly expanding global marketplace.

While reading this chapter, take note of the environmental parameters that affect the use of inventory models and their appropriate application.
You will now hear a summary of the following reading that will help in completing your assignments for the week.

Article “What is the ‘Right’ Inventory Management Approach for a Purchased Item?,” from International Journal of Operations & Production Management.

This article attempts to identify the most appropriate inventory management approach for a given purchased item. It identifies and explains the critical elements that are behind the decision process involved in this purchase.

In the article, “What is the ‘Right’ Inventory Management Approach for a Purchased Item?,” Wallin, Rungtusanatham, and Rabinovich examine the four basic inventory management approaches, speculation, inventory postponement, inventory consignment, and reverse inventory consignment, and then attempt to uncover if any one has an edge over the others given a specific product. The authors explore the critical factors that should be considered when attempting to choose the “right” inventory management approach as they influence which firm should have legal possession of the goods and the location of the goods. The article presents a systematic process for the analysis of the three critical factors that may influence the decision, including customer demand, the nature of the supply line, and the bargaining power of a firm relative to the supplier.

The authors’ go on to create a framework for applying the decision in specific contexts. Their findings show that this framework helps in identifying a more complete set of decision factors and underlying drivers that will enable the organization to make an appropriate decision regarding which approach to implement for a given purchased item.
You will now hear a summary of the following reading that will help in completing your assignments for the week.

Article “Perception on Information and Communication Technology Perspectives in Logistics: A Study of Transportation and Warehouse Sectors in Singapore,” from *International Journal of Enterprise Information Management*.

This article reports on the current usages of information and communication technologies by warehouse and transportation service providers. It seeks to uncover further details on the status of and perception toward these technologies.

In the article, “Perception on Information and Communication Technology Perspectives in Logistics: A Study of Transportation and Warehouse Sectors in Singapore,” Shaligram Polchard adopts a framework for the purpose of assessing the perception of logistics companies towards information and communication technology (ICT). The author examines the motivators and barriers to adoption of ICT that can assist, or hinder, decision makers in these fields in creating better policies and programs. The author researches logistics industries in Singapore in order to compare the attitudes of these companies with those found in other countries.

The author’s research shows that ICT can be an enabler for both front- and back-end processing in a supply chain. With access to information, each organization in a supply chain has the ability to make logistics services more accurate, which in turn increases turnaround time and lowers costs. The article’s findings are beneficial for ICT providers and logistics companies in understanding the current status of ICT, as well as opportunities and obstacles.