



BASICS OF INVENTORY MANAGEMENT

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LESSON NO 1 –

Welcome on this course where we will discuss the basics of inventory management. In this course we will see the impact of inventory management on the supply chain. We will look at how we can optimize our inventory levels and last but not least, we will take a look at some stock counting procedures. In this first lesson I will discuss the impact of inventory management on the supply chain. In our supply chain we have as discussed in other lessons suppliers, manufacturers, distribution centers, retail outlets and the customers. They all have their specific requirements on inventories. So as a supplier we will see raw materials or components and they will have the so called MRO products in stock. MRO products are maintenance, repair and operating supplies. So mostly that are the products which are used to support your own processes. When a supplier ships out his goods to its customer, then usually the inventory is in transit or we also call that pipeline stock at the manufacturer or at a production facility. We of course have raw materials, but once we are taking those raw materials and start processing them, they change and they cannot be used usually as raw material again. So in the inventory management part we call that the work in progress or the work in process. Furthermore, we finalize that process and then we will get finished goods. Also, a production facility is having those MRO items, maintenance, repair and operating supplies. When a manufacturer ships out his goods it usually goes to a distribution center. It can go in a direct shipment to retail outlet or even to the customer, but we call that inventory also intransit or pipeline inventory. In the distribution center we normally do not have raw materials. What we will have, we will have packaged goods. We will package those packaged goods in bulk, so big pallets of the same goods. We will have the so called cycle stock. So we need to order in bigger quantities than we at that moment need. There can be postponement parts, the parts we use to execute postponement activities, making changes to the product to customize it for the local need. Of course, a warehouse also needs MRO items. They also have their processes and need to maintain, repair or support their activities. Of course, a distribution center sends out the product to the market. That's also called the intransit or pipeline stock. In a retail outlet we normally have only packaged goods. In some parts a retail outlet will also sell a maintenance part, but it's not a common practice. So what we will see in the outlet itself are the package goods, the goods for final sale, and of course also the MRO, the maintenance, repair and operation supplies. Inventory cuts a lot of stakeholders and they have their own perceptions of inventory. So business leaders are usually see inventory as costs that may limit investment in new opportunities and in quote. So they see it on the balance sheet they see inventory and that money invested in. Inventories cannot be used for auto parts. That's the same or similar. For financial managers, they want to keep the value of inventory low because it affects the business financials. For operation managers, the inventory is key to their output. When it's too low, they cannot produce and their performance will drop. On the other hand, sales and marketing won as much as inventory because they need at least enough inventory to satisfy that amount. And for a customer, the only thing that counts is that they have the right product in the right quantities, at the right time, at the right place and in the right quality. So managing inventory is basically a subject of economies of scales. So at one size, if we buy more, then the unit cost will decrease because I get discounts and advantages of economies of scale in the production. But on the other hand my cost will increase because I need to store those products, I need

to keep them on inventory and I have more risks which are attached to holding that inventory. Risk like theft, but also risk like expiry are becoming obsolete.

