

Audit, Business Processes and Digitalization [BL 5]

Business Level II | CA Sri Lanka

Study Text

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PART B: BUSINESS PROCESSES AND INTERNAL CONTROLS

B.6: Inventory Management

Doing business or running an organization is a series of activities/multiple activities carried out to achieve business goals/objectives. Activities carried out on 'ACQUISITION & MANAGEMENT OF INVENTORIES' is one such prime activity carried out by almost all of the organizations as INVENTORY is a major current asset which involves series of tasks pertaining to the organization.

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B.6.1. Inventory control

Inventory control involves the functions of inventory ordering, receiving goods into store, storing items until required, issuing inventory, controlling the levels of inventory and protecting inventory from physical loss or damage

The nature of inventory control

All business organizations hold some inventory. In small businesses, and in some service organizations, inventory levels may be fairly small. However, in many businesses, especially large businesses, inventory levels can be very high.

Inventory has a cost, and when inventory levels are high, this means that the organization makes a large financial investment in its inventory. This investment should be managed carefully; otherwise the risk of losses from operational failures could be high.

Inventory control is inter-connected with the procurement process. It includes the functions of making purchase requisitions for inventory items, receiving goods into store, storing the goods until they are required, issuing materials and components and controlling levels of inventory

Classifications of inventories

- Raw materials and components
- Work-in-progress (for manufacturing businesses)
- Spare parts/consumables
- Finished goods

This chapter will concentrate mainly on an inventory control system for raw materials, components, spare parts and consumables; but similar problems also apply to finished goods and even work-in-progress. Controls should cover the following functions

	Raw materials and components	Finished goods
Ordering of inventory	From suppliers, by means of a purchase requisition to the purchasing department	By means of a production order to the production department
Receipt of goods into store	When delivered by the supplier's carrier	When production is complete. A finished goods store may be called a warehouse
Storage	Until required for use in operations	Until sold and delivered to a customer
When to place an order	When the inventory quantity falls to a reorder level	When the inventory quantity falls to a reorder level, or when a sales order is received from a customer
Quantity to requisition	For valuable stores items, an economic order quantity	This depends on the production management system in operation

Qualitative aspects of inventory control

We may wish to control inventory for the following reasons.

- Holding costs of inventory may be expensive.
- Production will be disrupted if raw materials are out of stock.
- When inventory with a short shelf life (such as food items) is not used, there will be a write-off cost when the materials are discarded after their useful life has expired

B.6.2. Issuing materials from stores

Every movement of materials should be documented using materials requisition notes, materials transfer notes and materials returned notes. Issues of materials and finished goods from store should be authorized

Materials requisition note

When materials are required from stores for use in operations, an authorized person should make a materials requisition

Materials requisition note			
Date required-----		Cost centre No/Job No-----	
Quantity	Item code	Description	Rs.
Signature of requisitioning Manger/Foreman-----		Date -----	

A copy of the requisition note should be retained by the stores department. This should be signed by the person receiving delivery from the stores department. Another copy of the requisition note, after the goods have been delivered, should be retained by the receiving department. Another copy should be sent to the cost department

Materials transfers and returns

Materials transfers and materials returned to store should be recorded.

Where materials, having been issued to one job or cost center, are later transferred to a different job or cost center, without first being returned to stores, a materials transfer note should be prepared

This shows:

- The stores item and quantity transferred
- The department (cost center) or job from which the transfer is made
- The department (cost center) or job to which the items are transferred

Materials returned to store are documented on a materials returned note. This document is the 'reverse' of a materials requisition note. It contains similar information and is used for a similar purpose

Computerized inventory control systems

Many inventory control systems are computerized. Most computerized inventory have the following features

An inventory master file is maintained	This file contains details for every inventory item, including current inventory levels.
Data about inventory received into store is input to the system	Materials received from suppliers may be recorded on a goods received note (GRN), which is then used to input details to the IT system. Alternatively, details of the goods received are keyed into the system, which produces a GRN. The GRN should then be signed as evidence that the goods have been received.
Data about inventory issued from the store is also recorded	Materials issued may be recorded on a materials requisition note, which is then used to input details to the IT system. Alternatively, details of the materials issued are keyed into the system, which produces a materials requisition document. Some systems may use devices such as barcode readers, to record materials issued (in the same way that barcode readers are used in stores to record inventory purchased by customers).
Data about materials returns are also recorded (in a similar way to materials issued)	
Inventory adjustments	When a physical count of inventory shows that the computer records are inaccurate, the computer records should be adjusted. Adjustments should be authorised by the storekeeper.

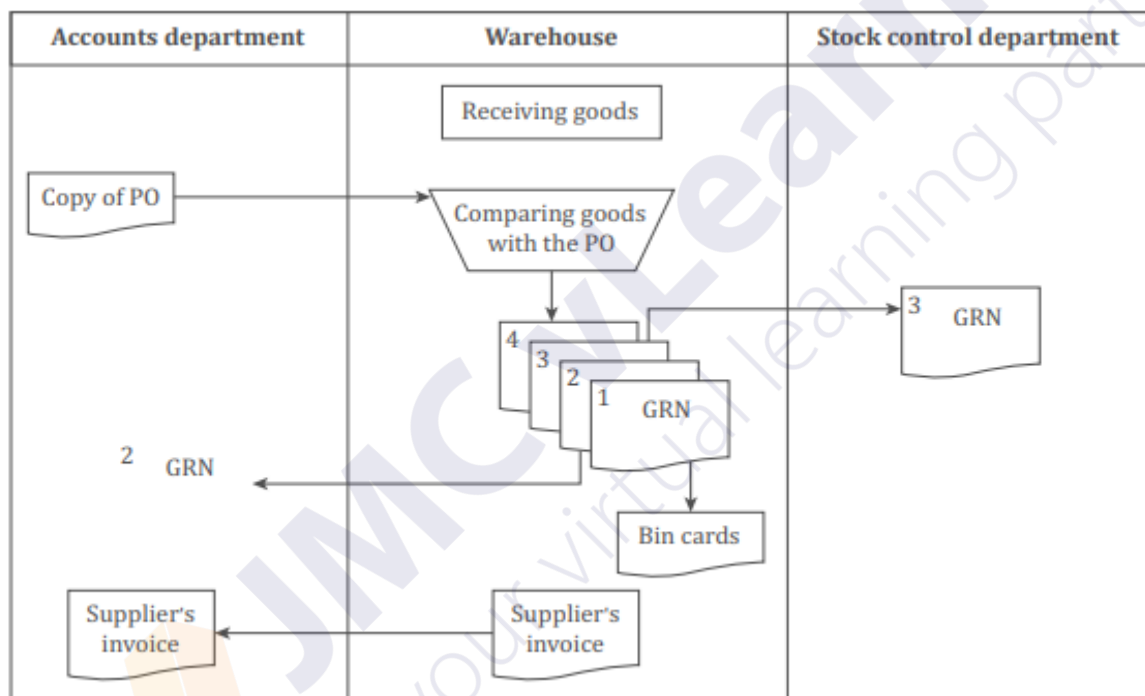
B.6.3. Storing materials

Inventory levels should be recorded. There are different methods of maintaining inventory records. Some of these keep records of inventory costs/values as well as quantities

When materials are stored, the stores department should have the following objectives.

- ✓ Speedy issue of materials when required
- ✓ Ability to identify all stores items and current inventory levels, at all times
- ✓ Ability to identify the location of each stores item
- ✓ Protection of materials from damage or deterioration, including damage due to fire or flooding
- ✓ Protection of materials from theft
- ✓ Efficient use of storage space
- ✓ Keeping accurate records of receipts into store, materials issued and materials returned
- ✓ To issue purchase requisitions at the appropriate time

Process flow diagram of receiving goods to stores



Recording inventory levels

One of the objectives of storekeeping is to maintain accurate records of current inventory levels. This involves the accurate recording of inventory movements

A bin card shows the level of inventory of an item at a particular stores location. It is kept with the actual inventory and is updated by the storekeeper as inventories are received and issued. A typical bin card is shown below

Part code no			Location			
Bin number			Stores ledger no			
Receipts			Issues			Inventory balance
Date	Quantity	GRN No.	Date	Quantity	Req. No.	

Stores ledger accounts are another way of maintaining records of inventory levels and costs. These records are kept by the cost accounting department. A typical stores ledger account is shown below

Material					Maximum Quantity						
Code					Minimum Quantity						
Date	Receipts				Issues				Inventory		
	GRN No.	Quantity	Unit price Rs.	Amount Rs.	Stores Req. No.	Quantity	Unit price Rs.	Amount Rs.	Quantity	Unit price Rs.	Amount Rs.

Identification of materials: inventory codes (materials codes)

Materials held in stores are classified and coded. Advantages of using code numbers to identify materials are as follows.

- Ambiguity is avoided. Every stores item has a unique code.
- Time is saved. Using descriptions for stores items can be lengthy and time consuming. Using codes is much faster and more efficient
- Production efficiency is improved. The correct material can be accurately identified from a code number.
- Computerized processing is made easier

Perpetual inventory system

Perpetual inventory refers to an inventory recording system whereby the inventory records are updated every time a receipt or issue of inventory occurs

This means that there is a continuous up-to-date record of the current balance of each item of inventory

Computerized inventory systems use a perpetual inventory system. Manual inventory records, using stores ledger records or bin cards, may also be perpetual inventory systems

The inventory count (stock take)

Inventory records may contain errors. An inventory count (stock take) involves counting the physical inventory on hand at a certain date, and then checking this against the balance shown in the inventory records

- Periodic stock-taking is a process whereby all inventory items are physically counted at a set point in time, usually at the end of an accounting period
- Continuous stock-taking is counting and valuing selected stores items at different times, on a rotating basis

B.6.4. Inventory ordering quantities

An economic order quantity for a stores item is the order quantity that minimizes the combined total of stores holding costs and stores ordering costs in a given period of time

When materials and components are purchased for stock, there should be procedures for deciding:

- ✓ What the size of a purchase order should be
- ✓ When a new purchase order should be made

Inventory costs

Inventory costs include purchase costs, holding costs, ordering costs and the costs that occur as a consequence of running out inventory (a 'stock-out')

Organizations may buy some stores items in large quantities and hold inventories for a long time. There are two common reasons for this

- By purchasing large quantities of an item, an organization may be able to benefit from a bulk purchase discount. The supplier may reduce the purchase price per unit if the order quantity is at least a minimum size
- Low cost items may be purchased in large quantities because they do not cost much to buy and store, and the cost of closer inventory control would not be justified by the benefits of lower inventory levels

Holding costs and ordering costs

When an organization tries to avoid running out of any inventory item, and if bulk purchase discounts are not available from suppliers, the only inventory costs that can be managed are:

- The costs of holding inventory
- The costs of ordering supplies of inventory

These costs can be minimized by ordering new supplies in a quantity known as the economic order quantity. For high value items, or items that are expensive to hold in store, using the economic order quantity can result in useful cost savings

Holding costs	Ordering costs
Cost of storage space	Administrative costs of placing orders
Cost of stores staff and equipment costs	Transport/delivery charges
Interest charges on amount of investment in inventory	
Insurance costs for inventory	
Cost of losses due to theft, deterioration or damage	

B.6.5. Inventory control levels

Inventory control levels can be used to maintain inventories at an optimum level. The three critical control levels are reorder level, minimum level and maximum level

Inventory control levels can be used by the stores department to monitor inventory levels and prevent excessive inventory levels and reduce the risk of running out of inventory before a new supply is delivered

Reorder level

When the inventory level for a stores item falls to its reorder level, a purchase requisition for the item should be issued and a purchase order should be made

Minimum inventory level

The minimum inventory level for a stores item is a warning level. Its purpose is to draw the attention of management (the storekeeper) to the possibility that the inventory level may fall to zero before the new order is delivered

Maximum inventory level

The maximum inventory level is another warning level, to signal to management that inventories are possibly at an excessive level

B.6.6. Other systems of stores control

Order cycling method

With the order cycling method, quantities on hand of each stores item are reviewed periodically (for example, every 1, 2 or 3 months). For low-cost items, a technique called the 90-60-30 day technique can be used, so that when inventories fall to 60 days' supply, a fresh order is placed for

a 30 days' supply so as to boost inventories to 90 days' supply. For high-cost items, a more stringent stores control procedure is advisable so as to keep down the costs of inventory holding

Two-bin system

The two-bin system of stores control (or visual method of control) is one in which each stores item is stored physically in two storage bins. When the first bin is emptied, an order must be placed for re-supply; the second bin will contain sufficient quantities to last until the fresh delivery is received

Classification of materials

Materials items may be classified as expensive, inexpensive or in a middle-cost range. Because of the practical advantages of simplifying stores control procedures without incurring unnecessary high costs, it may be possible to segregate materials for selective stores control

Purchase to order system

The EOQ and systems for controlling and monitoring inventory levels are used in a purchase to stock system, for items that are purchased and used regularly in the business operations.

In a purchase to order system, items are purchased for a specific customer order. The stores items, when delivered from suppliers, are kept separate and can be identified separately

B.6.7. Physical safeguards for inventory

Stores management should take measures for the physical protection of stores items from theft, deterioration and damage

An organization may have a large investment in its inventory, and it is important that it should be safeguarded, to reduce risks of loss. As explained previously, the risks of physical loss of inventory includes the risk of loss from:

- Theft
- Accidental damage during operations
- Deterioration
- Damage due to fire or flooding

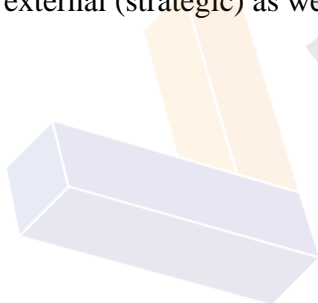
Stores management has the responsibility of providing physical safeguards for the inventory. Some suggestions are as follows

Maintain the stores area at an appropriate temperature and humidity level	To prevent deterioration
Provide suitable storage facilities for the stores items, such as refrigeration for items that should be stored at low temperatures	To prevent deterioration
Employ security guards and install CCTV cameras	To reduce the risks of theft
Allow access to the stores only to authorised personnel	To reduce the risks of theft
Regular physical counts of valuable stores items	To identify unexplained discrepancies with stores records: this may be an indication of theft
Train stores staff in the use of moving equipment, such as fork lift trucks	To reduce the risk of accidental damage when moving inventory
Insure inventory against fire or flooding	To reduce losses in the event of damage due to fire or flooding

B.6.8. Business risks connected with the inventory management process

There are business risks in the inventory management process, which should be managed. Many of these risks are operational risks, which can be reduced by means of internal controls

There are business risks in the inventory management process. You may be required to identify what these are and suggest an appropriate way of managing the risk. Remember that risks may be external (strategic) as well as operational



Risk	Internal control or other risk management measure
Excessive costs delivering goods from store to operational units around the country	Consider the economic merits of opening stores in other locations, to reduce delivery costs
Physical risks to inventory	Various control measures and other risk management measures (such as insurance) have been described previously
Risk of running out of an important inventory item	Use or reorder level for placing purchase orders Minimum inventory level as a warning signal
Risk of excessive inventory levels	Maximum inventory level as a warning signal
Risk of issuing stores items to individuals who should not receive them	Use of authorised materials requisition notes
Risk of errors in inventory records	Occasional physical counts of inventory, for comparing with inventory records
Risk of accepting goods into store that do not correspond correctly with items ordered from the supplier	Check of goods received against purchase order details, when preparing a goods received note

Key areas involved:

- Accuracy of inventory counts
- Issuing materials from store
- Returns of materials to store
- Returns of materials to the supplier

B.6.9. Inventory valuation

Establishing the level of inventory

Business trading is a continuous activity, but accounting statements must be drawn up at a particular date. In preparing a statement of financial position, it is necessary to freeze the activity of a business to determine its assets and liabilities at a given moment. This includes establishing the quantities of inventories on hand, which can create problems.

If a business holds easily counted and relatively small amounts of inventory, quantities of inventories on hand at the reporting date can be determined by physically counting them in an inventory count at that date. I

n more complicated cases, where a business holds considerable quantities of varied inventory, an alternative approach to a physical count or stock take is to maintain and then use figures from a continuous or perpetual inventory system

Applying the inventory valuation rule

The value of inventories is calculated at the lower of cost and net realizable value for each separate item or group of items. Cost can be arrived at by using FIFO (first in, first out) or WAC (weighted average costing)

Determining the purchase cost

Inventories may be raw materials or components bought from suppliers, finished goods which have been made by the business but not yet sold, or work in the process of production, but only part-completed (this type of inventory is called work in progress or WIP). It will simplify matters, however, if we think about the historical cost of purchased raw materials and components, which ought to be their purchase price

When to use NRV

We can identify the principal situations in which NRV is likely to be less than cost.

- (a) An increase in costs or a fall in selling price
- (b) A physical deterioration in the condition of inventory
- (c) Obsolescence of products
- (d) A decision as part of the company's marketing strategy to manufacture and sell products at a loss
- (e) Errors in production or purchasing

Recognition as an expense

The following treatment is required when inventories are sold.

- (a) The carrying amount is recognized as an expense in the period in which the related revenue is recognized.
- (b) The amount of any write-down of inventories to NRV and all losses of inventories are recognized as an expense in the period that the write-down or loss occurs.
- (c) The amount of any reversal of any write-down of inventories, arising from an increase in NRV, is recognized as a reduction in the amount of inventories recognized as an expense in the period in which the reversal occurs

Inventory valuation – accounting controls

Entity to make sure that an allowance is made on account of obsolete/slow moving stocks? Controls may be to review stock age analysis, discuss at management meetings and follow-up on non-moving stocks, etc.

Similarly if the standard costing method is used, the controls would be to review whether such costing is periodically revised, whether changes are made with authorization, and that variances are correctly accounted for. Another example would be checking of costing by a superior to ensure that all costs incurred in bringing the stocks to their current location and conditions are included in the valuation



Chapter review questions:

1. Items of materials are ordered from the stores department on:
 - A. A materials requisition note
 - B. A materials transfer note
 - C. A purchase requisition note
2. Statement: In an inventory management system, the order quantity that minimizes total annual costs is the economic order quantity
 - A. This statement is always true.
 - B. This statement is never true.
 - C. This statement is sometimes true

3. What is a perpetual inventory system?

4. The following information relates to a stores item

	Minimum	Average	Maximum
Consumption (units per day)	40	60	75
Supply lead time (days)	6	7	10

In an inventory management system designed to avoid stock-outs:

- (a) The reorder level is _____ units
- (b) The minimum inventory level is _____ units

5. What is the purpose of an inventory count?

