

INVENTORY CONTROL

The Dictionary meaning of Inventory is "List of Goods".

In broader sense - idle resource having an economic value.

In other words - various items of stores kept in stock to meet future demands

Objective: To ensure continuous availability of stores to user departments while keeping the stock levels at optimum level is one of the important objectives of Stores Department.

To optimum stock levels is measured by working out inventory turnover ratio on every 31st march, which is worked out as under:

$$\text{Inventory Turn Over Ratio} = \frac{(\text{Total inventory balances in Rupees on 31st March})}{(\text{Total value of stores issued during the year})} \times 100$$

Types of Inventory:

1. Raw Materials & Parts: all raw materials & components used in Manufacture of product.
2. Consumables & Spares: Materials used for every day maintenance & operation.
3. Work in progress: Items in various stages of production.
4. Finished Product: Goods ready for sale or use.

Need for Inventory:

1. To avoid un- economical purchase on daily basis
2. To overcome Unforeseen fluctuations in demand & time

In order to keep inventory turn over ratio and compliance figure at optimum level, selective inventory management method is used on Indian Railways. We classify the item in A-B-C category as well as vital, essential and desirable category (V-E-D). These are explained below.

A-B-C Analysis: If in Stores all of the Stock items are analysed in terms of their annual consumption - usage value, major part of total consumption value say 70% is represented by around 10% of total items, 20% of total annual usage value is controlled by 20 % of total items, and remaining 10 % of total consumption value is represented by a large number (say 70%) of small consumption value items.

In Railways we have decided that all high consumption value items which represent 70% of total annual usage value, will be classified as "**A**" category, items which represent further 20% of total usage value will be classified as "**B**" category and all remaining items representing 10% consumption value will be "**C**" category.

- CAT "A" - >40 Lakhs
- CAT "B" - >5 Lakhs upto 40 lakhs
- CAT "C1"- >25000 upto 5 lakhs
- CAT "C2" - <25000

For the purpose of Inventory control,

"A" category items are most important. Therefore, they are closely monitored at highest level at very frequent intervals. In Railways, their stock levels, consumption forecast etc., are monitored at the level of COS /CMM every month.

"B" category items are monitored at the level of CMM/Dy.CMM every quarter or every six months.

Stock verification of "A" category items is carried out every six months; for "B" category items every year and once in two years for "C" category.

To achieve better inventory turn over ratio, we intend to keep average stocks of 3 months, 6 months and 12 months of "A", "B" and "C" category items respectively.

V-E-D Classification:

A-B-C Classification is on the basis of consumption value of an item and does not give any importance to the criticality of the item and therefore, only A-B-C Classification is not adequate.

Classification done on the basis of criticality of the item is known as V-E-D, where the items are classified as Vital, Essential and Desirable. Vital items are those items, which are very critical for the operations and do not permit any corrective time i.e. they cannot be procured off the self if they are not available. Essential items are comparatively less critical and work without them can be managed for a few days. All remaining items are known as Desirable items.

iMMS:

Materials Management Information System was developed at Central Railway in 1998 initially for Stores office, Stores Accounts office and five major depots of the Central Railways. Since then, the system has undergone several customizations and is now successfully implemented on most of the Stores Depots, Divisions & Stores finance branches **all over Indian Railways.**

Integrated iMMS is a centralized iMMS hosted at CRIS. With implementation of iMMS, the quality of work and output has improved; flow of information is very quick.

The details of all modules implemented under MMIS are as below:-

a) Purchase Module: The entire process of procurement i.e. from registration of Demand to release of purchase order and post contract activities is fully computerized.

b) Finance Module: It is implemented at Stores A/c. in HQ. Bill passing activities, payments and Stores Monthly Summaries are being generated through MMIS.

c) Depot Module: It is implemented in the depots. Sub modules are Ledger Section, Yard, Transaction Module, Receiving Section, Fabrication, Returned Stores, etc.

d) Uniform Module: This module facilitated for monitoring of uniform supply to the railway employees.

e) Sales Module: This module is for management of sale activity (disposal of scrap) of the railway.

f) Local Purchase (LP) Module: This module has been designed, developed and implemented in Divisions & depot for petty purchase stock and non-stock items.
