Inventory Analysis Dashboard

# What is Inventory and what is Inventory Management?

In general, both the raw materials used in production and the finished commodities that are offered for sale are included in the definition of inventory. One of a company's most valuable assets is its inventory because it is one of the main sources of revenue generation and, consequently, a source of profits for the company's shareholders. There are three different categories of inventory: finished commodities, work-in-progress, and raw materials.

The process of ordering, storing, using, and selling a company's inventory is referred to as inventory management. This covers the storage and processing of such commodities as well as the management of raw materials, components, and completed goods. Depending on a company's demands, there are various forms of inventory management, each with advantages and disadvantages.

# What is ABC Classification?

A rating method called ABC classification is used to categorize and identify products based on how beneficial they are for attaining corporate objectives.

The approach necessitates classifying items into three groups:

A - of the utmost importance

B: Moderately significant

C - Not very significant

The 80/20 rule, a business statistic that states that 20% of the inputs dictate 80% of the outputs, is closely related to ABC classification. The purpose of ABC classification is to give a business a mechanism to pinpoint that important 20% so that sector may be closely managed. Once the A, B, and C categories have been determined, each one can be treated differently, with more focus going toward category A, less going toward category B, and even less going toward category C.

The ABC classification system can be used to rank things like which customers are most crucial, which business segments present the greatest financial risk, which employees are most valuable, or which steps in a process are most likely to result in a bottleneck. It is most commonly used for inventory control.

# What is XYZ Classification?

# In business administration or materials management, the XYZ analysis is a process in which things, such as commodities, services, etc., are categorized in accordance with how frequently they are turned over. Three phases of classification are based on prior consumption values:

# Products that are regularly sold, utilized, or consumed are referred to by the symbol X.

# Y stands for consumption that is highly variable, such as when goods are sold, utilized, or consumed more frequently as a result of seasonal conditions, a trend or boom, or an event.

# Z represents erratic consumption.

# How to Interpret XYZ Classification?

# The results of the XYZ analysis, sometimes referred to as the RSU analysis for regular, seasonal, and unstable, are crucial for stock planning, timely item manufacturing, and the acquisition of commodities. Using a standard deviation and a coefficient of variation derived from the consumption's mean value, the classes are determined:

# Usual coefficients of variation for X range from 0 to 25%, for Y from 25% to 50%, and for Z greater than 50%.

# Additionally, XYZ analysis enables the combination of quantity fidelity, which measures how high the consumption per item call-off was, and withdrawal behaviour over time (how frequently products are sold, used, or consumed within a given time frame). Statements like X-X (the commodities are consistently consumed in constant quantities) or X-Y may emerge from this (the goods are regularly consumed with strongly fluctuating quantities).

# ABC-XYZ Matrix

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# For just-in-time procurement, the combinations A-X, B-X, C-X, A-Y, and B-Y are acceptable. B-Y could potentially be acquired through stock acquisition.

# Due to the difficulty in predicting the pairings A–Z and B–Z, businesses must choose between costly ordering, expensive warehousing, and the possibility of delivery bottlenecks.

# Input from C-Z should be as minimal as possible. Again, a balance between stock levels and procurement costs needs to be struck here.

# Inventory Turnover Ratio

# By dividing the average inventory value throughout the time period by the cost of products sold, inventory turnover calculates how effectively a business utilises its inventory.

# Inventory turnover ratios are crucial for retailers because they can only be used to compare similar businesses.

# While a greater ratio implies good sales but may also be an indication of insufficient inventory stocking, a comparatively low ratio indicates either weak sales or excess inventory.

# Safety Stock

# A safety stock is a surplus of a product that is kept in the warehouse to avoid running out of stock. It acts as protection against shifts in demand.

# Importance of Safety Stock

# Running out of stock is made easier by having safety stock. If you have enough safety stock on hand, you won't need to rely on your suppliers' prompt deliveries or turn away clients because of low stock levels. Up until your next shipment of ordered stock arrives, you are covered by safety stock. Let's examine the value of safety stock for your company:

# Safeguards against demand peaks

# Stock up to prepare for lengthier lead times.

# Mitigation of price fluctuations

# Reorder Levels

# The fixed stock level that falls in between the maximum and lowest stock levels is known as the reorder level of stock. An order for stock replenishment should be placed at the reorder stock level.

# The inventory level at which a fresh purchase order should be placed is known as the reorder stock level.

# The reorder level of stock is typically larger than the minimum level to meet any crises that may occur due to unusual material usage or unforeseen delays in receiving fresh supplies.

# Stock Status

# A product's stock status indicates how much of its inventory is currently on the market. Businesses keep track of their inventory levels to make sure they have enough products on hand to meet client demand, but not so much that they are tying up too much capital in inventory. Stock status can be expressed in units, dollars, or both.