



ICMPC 2017

# Inventory Management in Supply Chain

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## Abstract

The Purpose of this paper is to overview the Inventory management in supply chain and their current Inventory related issue in a present day business and present a conceptual methodology for related issue. The methodology based on the inventory, which are inputs for the methodology and benefits which are output of methodology.

A literature review is conducted on management or control of inventory and also issues related to inventory in industry, and its various parameters. A conceptual methodology for inventory issues in present business.

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Selection and/or Peer-review under responsibility of 7th International Conference of Materials Processing and Characterization.

*Keywords:* Inventory; Inventory Management ; Supply Chain Management ; Inventory issues.

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## 1. Introduction

The scope of inventory management concerns the fine lines between replenishment lead time, carrying costs of inventory, asset management, inventory forecasting, inventory valuation, inventory visibility, future inventory price forecasting, physical inventory, available physical space, quality management, replenishment, returns and defective goods, and demand forecasting. Balancing these competing requirements leads to optimal inventory levels, which is an ongoing process as the business needs shift and react to the wider environment.

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### **Introduction to Inventory:**

Inventory is the raw materials, work-in-process products and finished goods that are considered to be the portion of a business's assets that are ready or will be ready for sale. Inventory represents one of the most important assets of a business.

The paper makes an attempt to understand the importance of inventory, Inventory issue and then to present a conceptual methodology for inventory issue.

The objective of this paper are:-

1. To understand the concepts of inventory and inventory management in supply chain.
2. To highlight the inventory issue in current business.
3. To highlight various inventory issue in industry.
4. To present a conceptual methodology for related issue.

The paper is organized as after the literature review a conceptual methodology for inventory related issue is presented. Finally, concluding remarks with some directions for future research are provided.

**Inventory Management** is the part of Supply chain management that plans, implements and controls the efficient, effective, forward, and reverse flow and storage of goods, services, and related information between the point of origin and the point of consumption in order to meet customer's requirements.

Inventory management is defined as “the continuing process of planning, organizing and controlling inventory that aims at minimizing the investment in inventory while balancing supply and demand”. Specifically, the process is a supervision of supply, storage and accessibility of items in order to ensure an adequate supply without excessive oversupply.

Since the mid-1990s, there has been a large increase in annual number of inventory management articles. Researchers conduct such relevant research in several respects. First, most of publications in logistics journals are about traditional inventory control models. These papers evaluate traditional inventory control models under particular conditions or incorporate additional considerations into established models. Another popular theme is about developing approaches to reduce the quantity of inventory that a warehouse must have, which refers to reducing the safety stock by centralization of warehouse locations.

**Supply Chain** is defined as a system of organizations, people, activities, information, and resources involved in moving a product or service from supplier to customer. Supply chain activities involve the transformation of natural resources, raw materials, and components into a finished product that is delivered to the end customer.

The network of organizations that are involved, through upstream and downstream linkages, in the different processes and activities that produce value in the form of products and services delivered to the ultimate consumer. A set of firms that pass materials forward. The alignment of firms that brings products or services to market including the final customers as part of the supply chain. A set of three or more entities (organizations or individuals) directly involved in the upstream and downstream flows of products, services, finances, and/or information from a source to a customer. Inventory is part of supply chain or supply chain management whose totally focus on management of inventory from supplier to customer and vice versa.

### **Process view of supply chain:**

- (1) **Cycle view** - In which the processes in a supply chain are divided into a series of cycles, each performed at the interface between two successive stages of a supply chain as show in below Fig.1.

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