

Chronology and Developments in Inventory Control Best Practices for FMCG Sector

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Abstract : Agriculture contributes a major share in the national economy of India. A major portion of Indian economy (about 70%) depends upon agriculture as it forms the main source of income. About 43% of India's geographical area is used for agricultural activity which involves 65-75% of total population of India. The given work deals with the Fast moving Consumer Goods (FMCG) industries and their inventories which use agricultural produce as their raw material or input for their final product. Since the beginning of inventory practices, many developments took place which can be categorised into three phases, based on the review of various works. The first phase is related with development and utilization of Economic Order Quantity (EOQ) model and methods for optimizing costs and profits. Second phase deals with inventory optimization method, with the purpose of balancing capital investment constraints and service level goals. The third and recent phase has merged inventory control with electrical control theory. Maintenance of inventory is considered negative, as a large amount of capital is blocked especially in mechanical and electrical industries. But the case is different in food processing and agro-based industries and their inventories due to cyclic variation in the cost of raw materials of such industries which is the reason for selection of these industries in the mentioned work. The application of electrical control theory in inventory control makes the decision-making highly instantaneous for FMCG industries without loss in their proposed profits, which happened earlier during first and second phases, mainly due to late implementation of decision. The work also replaces various inventories and work-in-progress (WIP) related errors with their monetary values, so that the decision-making is fully target-oriented.

Keywords : control theory, inventory control, manufacturing sector, EOQ, feedback, FMCG sector

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