

Process re-engineering of Sri Lanka's Downstream petroleum industry stock planning operations.

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The vision of the Ceylon Petroleum Storage Terminals Limited (CPSTL) is to be the most efficient petroleum terminal operator in South Asia. CPSTL is responsible for 90% of storage and distribution of the Sri Lankan downstream petroleum industry, which constitute of tanker/tank farm operations, island-wide delivery of petroleum products by rail, road, and pipeline. CPSTL provides ERP and laboratory services for the entire industry. The logistical operation is accomplished via 2 main installations and 12 island-wide bulk depots. It involves fuel supply to dealers and consumers, whilst replenishing the island-wide bulk depots. The installations are replenished by tankers from Colombo harbour, Muthurajawela offshore SPBM and the Ceylon petroleum Corporation's (CPC) Sapugaskanda refinery. Bulk depots are replenished by the 2 installations via tank lorries and railway wagons. Although stock planning procedures did exist, various limitations and drawbacks have resulted in underutilization of resources, massive losses in distribution operation, increased risk of storing highly inflammable products and window for various manipulations. The project was implemented with the objective of streamlining the stock planning operation with the utilization of the SAP ERP system. It provides a daily stock quota system for each bulk depot, which optimizes the tank lorry, wagon utilization as per the sale, stock availability, tank capacity, goods receipt status, and vehicle availability. Two important phases of stock planning operations were identified during business process analysis. They were re-engineered and integrated to SAP ERP system. The system ensured island-wide product availability eliminating over/under scheduling. The system included features for tracking of delayed tank lorries and wagons. Various key performance indicators related to the stock planning operation were introduced to facilitate operational monitoring and strategically important decisions.

Keywords: stock planning, downstream petroleum industry, logistics