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Strategy of Inventory Analysis with Economic Order Quantity and Quick Response: Case on Filter Inventory for Heavy Equipment in Indonesia

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Abstract : The use of heavy equipment in Indonesia is always increasing. Cost reduction in procurement of spare parts is the aim of the company. The spare parts in this research are focused in the kind of filters. On the early step, the choosing of priority filter will be studied further by using the ABC analysis. To find out future demand of the filter, this research is using demand forecast by utilizing the QM software for windows. And to find out the best method of inventory control for each kind of filter is by comparing the total cost of Economic Order Quantity and Quick response inventory method. For the three kind of filters which are Cartridge, Engine oil – pn : 600-211-123, Element, Transmission – pn : 424-16-11140, and Element, Hydraulic – pn : 07063-01054, the best forecasting method is Linear regression. The best method for inventory control of Cartridge, Engine oil – pn : 600-211-123 and Element, Transmission – pn : 424-16-11140, is Quick Response Inventory, while the best method for Element, Hydraulic – pn : 07063-01054 is Economic Order Quantity.

Keywords : strategy, inventory, ABC analysis, forecasting, economic order quantity, quick response inventory
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