DETERMINATION ORDER POLICY VENDOR MANAGED INVENTORY APPROACH FOR SINGLE SUPPLIER, MULTI PRODUCT AND MULTI RETAILER IN PT. PETROKIMIA GRESIK (PERSERO)

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ABSTRACT

PT. Petrokimia Gresik (Persero) is a fertilizer company in East Java which covers the whole of it’s marketing areas in Indonesia. In producing fertilizer as it’s main products, PT. Petrokimia Gresik (Persero) should be able to minimize operating costs and production. Inventory system at PT. Petrokimia Gresik (Persero) there are two kinds of warehouses, namely the central warehouse and warehouses buffer. Inventory system using two kinds of these warehouses use a lot echelon inventory system (Multi-Echelon Inventory). In the fertilizer shipments to the warehouse Buffer often have run out of stock or excess stock which led to a very high cost and will affect the stock distributor. It required the right policy settings orders from a central warehouse to warehouse and from warehouse buffer buffer to the distributor.

The purpose of this study was to determine the policy of shipping orders right product on Vendor Managed Inventory policy by using the application method of management policies with approaches vendor managed inventory (s, S) so as to accommodate the inventory planning by suppliers. Inventory management is done by considering the parameters-parameters and associated inventory costs. Implementation of vendor
managed inventory management model is integrated to produce a value \((s, S)\) for each product on the supplier. In addition this model will have an impact on the replenishment flow changes resulting in changes in the costs incurred. To that end, will be compared to the total cost between the existing system of inventory management policies and alternative policies in managing vendor managed inventory is integrated with the approach \((s, S)\) for the case of single supplier, namely PT. Petrokimia Gresik dan multi retailers (retailers / distributors of PT. Petrokimia Gresik) for multi product thus obtained quantitatively profits by minimizing operational costs and the company can produce the optimal delivery of decisions than the existing circumstances that exist.

The results of the simulation output from the simulation results of the implementation of VMI comparison to existing conditions in general is the average increase in service level generated is equal to 1.06\%. And the average total cost savings amounted to 20\%.

**Keywords:** Single supplier of multi-product-multiretailer, approach \((s, S)\), Vendor Managed Inventory.