ABSTRACT

Optimization Analysis of Rice Supply Chain and Use of Warehouse in Perum BULOG Divre DKI Jakarta

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Ideal strategy in supply chain management is to emphasize the efficiency and to manage capability for responding consumer demand appropriately which is realized with application of company policy by optimizing six supply chain performance drivers: facilities, inventory, transportation, information, resources and price simultaneously. The purpose of this study is to formulate optimization of the rice supply chain structure and use of the warehouse in Perum BULOG Divre DKI Jakarta by (i) analyze optimization of the rice supply chain structure and the use of warehouse using goal programming approach and (ii) analyze transportation cost of rice distribution by comparing the cost of transport with fixed rates and with different rates for each area of distribution points.

In optimal conditions, the supply of rice from West Java province entirely done by regional procurement to Jakarta and Serang region while the supply of rice from South Sulawesi province done by regional procurement to Jakarta and Lebak region, movenas directly to Tangerang, Lebak and Serang region and movenas by transit in Jakarta warehouses to Serang and Lebak region. Transportation costs can be saved from the budget is Rp. 13,790,139,648, -. The use of warehouses for public assignment in Jakarta are 13 units with capacity of 45,500 tons, in Tangerang are 4 units with capacity of 32,000 tons, in Serang are 7 units with capacity of 14,500 tons and in Lebak are 6 units with capacity of 6,000 tons. The use of warehouses that can be rented for commercial assignment in Jakarta are 49 units with capacity of 171,500 tons with potential rental income of the warehouse for one year amounted to Rp. 25,401,600.000, - and in Cikande Tangerang are 7 units with capacity of 70,000 tons with potential rental income of the warehouse for one year amounted to Rp. 9,061,852,800, -. Transportation costs of rice distribution calculated by different rates for each region is smaller Rp. 305,112,135,- compared to transportation costs of rice distribution calculated by fixed rates.

Keywords: optimization, supply chain, warehouse, rice, BULOG, goal programming.