## ABSTRACT

Bulog is an Indonesian food institution that takes care the marketing of rice and has a function as a reviewer and national policy makers in the field of logistics management, procurement, inventory management, distribution of rice, and the rice price controls. One of the bulog's task is to be logistics coordination RASKIN foodstuffs (rice for the poor citizen). Currently Raskin supplies in Bulog frequent deficiencies that decrease the number of service level. These circumstances can lead to total inventory cost increase due to the high cost of shortcomings.

This problem can be solved using multi-echelon control system model approach. Using these methods will be calculated service levels and total cost of inventories includes the retailer cost, depot costs, and transportation costs.

The results of the application of multi-echelon control model on poor rice inventories resulted total inventory cost of Rp 49,644,791,116,270 and the service level of 90%

The decline in total cost of inventories resulting from reduction of shortage cost of Rp 162 164 270, and an increase in service level is caused because there were sufficient supplies in storage to fulfill the demand.

Key words: Inventory Policy, Stockout, Multi Echelon, Service Level