ABSTRAK

The journey of BULOG Public Company started at the time of the establishment of BULOG on May 10, 1967. In the Presidential Decree no. 29 of 2000, BULOG's main task is to carry out the tasks of the Government in the field of logistics management through the management of inventory, distribution and control of rice prices (maintaining Government Purchase Price - HPP), and logistic service business in accordance with the prevailing laws and regulations.

The problem that happened to Public Company of BULOG Sub Divre Banduug is inventory control which is done still based on estimation or intuition.

BULOG Public Company estimates the amount of orders in accordance with warehouse capacity without estimating the cost of inventory issued. This can be seen from uncontrolled inventory planning. Based on the existing problems and need to do further research , by the use of quantitative forecasting to plan rice needs next year and methods of supplies probabilistic estimate model that is a model p back order .

Based on the smallest error values from the processing of prosperous rice data using linear regression forecasting while government rice reserves use multiplicative decompotition forecasting. Data processing by using P back order model obtained time between ordering of prosperous rice for 3 days and government rice reserve equal to 47 days, where previously the company used time offices for 30 days from both classes of rice.

Compared to both inventory controls, the total cost of model P has an optimum value compared to the inventory system implemented by the BULOG Public Company. The total cost of the company for the prosperous rice is Rp. 2,487,102,157,106 and Government Rice Reserves of Rp. 840.332.882, while the P model itself obtained total cost of prosperous rice amounting to Rp 1,685,442,137,595 and Government Rice Reserve of Rp 831,549,475. Thus a savings percentage of 48% for prosperous rice and 1.06% for Government Rice Reserves.

Keyword : Inventory Control, Probabilistic Model P Backorder, Forecasting