## ABSTRACT

PT XYZ is one of retail company located in Bandung. One of product that they sales is dry food category. Dry food storage location are divided into three categories: General Area, Sensitive Areas, and Cold storage.

Dry food product category inventory inside PT XYZ warehouse has not been managed well, so the supply stored exceeds the warehouse capacity. This leads to overstock which results the increasing of total inventory cost at PT XYZ.

PT XYZ consumer demand tends to be fluctuated so the sales are probabilistic. In this research, the application of probabilistik Continuous models (s, S) System methods which can provide near-optimal supply parameters at intervals and the optimum size of the number of reservations for each SKU in the category Dry food, so the total cost of inventory will be minimized.

Probabilistik Continuous models (s, S) System methods application results lot size inventory, backup safety, optimal reorder point, and the cost of the total cost of inventory will be minimized. Probabilistik Continuous models (s, S) System methods can give a decrease of 52% in the General Area, 75% in Sensitive Areas, and 62% in Cold storage.

Keyword: Inventory, Probabilistic, Overstock, Continuous review (s,S) System