ABSTRACT

Nowadays many companies compete to get big profit and also customer satisfaction. They are very important for the company due to influence it performance externally and internally. The external factor which is influenced about making relationship with other supplier and distributor or retailer which are called supply chain. The successfully building supply chain can affect the achievement of profit and customer satisfaction, so that the information from the supply chain is needed attentionally. The X company is producing food and one of the biggest in Indonesia. It often has troubles in distributing its products. They are often overstocks or less stocks which cause to the cost. In order to prevent them, the company need to analyze distribution strategy and find the Bulwhip Effect cause by using an approach which will choose best alternative based on preferences criteria.

Variance coefficient measurement can be used to measure the bullwhip effect. It is calculated based on actual demand in every supply chain level and lead time product in distributing process. This model is resulted than a bullwhip effect accure in distribution line. It is detected from the value of variance coefficient which is bigger than zero (0). Fuzzy approach is a multicriteria decision making method used to rank the alternatives. They are 12 criterion and 3 alternatives to decide the best solution.

It is concluded that there is an information distortion from the lower supply chain information to the next level. It is caused by fluctuatively demand from unreliability forecasting in every distribution chain level. A corrective action will be taken to repair this condition. It is choosen based on decision maker preferences. It is Multi-echelon Inventory control to reduce the Bullwhip Effect.

Keywords: Bullwhip Effect, Forecast Unreliability, Fuzzy, Multi Criteria Decision Making, Lead time, Distribution System.