ABSTRACT

The main consideration of Supply Chain Management is the existence of synchronization and coordination to the upstream and downstream channel. Therefore, the information flow and coordination among trading partners must be done as good as possible. A lack of it often make an information distortion, one of this kind of distortion is amplification of the demand variability from the downstream channel to the upstream channel, known as the bullwhip effect phenomenon. The existence of the bullwhip effect will make an inefficiencies in the supply chain, especially in the production planning and products distribution.

This research is an attempt to conduct evaluation to the bullwhip effect in the supply chain of sojtdrink products produced by PT. Coca Cola Bottling Indonesia Pandaan. This evaluation consists of several steps. First, measuring the bullwhip effect. The bullwhip effect measurement will be divided into four type of different measurement in two echelon: manufacturer and sales center. The first measurement is the most detail analysis, measuring the bullwhip effect for each product at every sales center. The second measurement, the demand is aggregated over the sales centers. The third measurement, the demand is aggregated over the products, and the fourth measurement, the demand is aggregated over the sales centers and products. After doing the bullwhip effect measurement, the next step is to identify the causes of the bullwhip effect in the supply chain of PT. CCBI Pandaan, and also assessing the contribution of every cause to the bullwhip effect. The last step that will be done is to determine the solution which fits with company’s condition to mitigate the bullwhip effect.

The result of this research is the value of the bullwhip effect happened in the supply chain of PT. CCBI Pandaan. The value of the bullwhip effect (OJ) getting from all four different measurement are > 1, it means that the bullwhip effect occurred in the supply chain under investigation. From the evaluation would be known the causes of the bullwhip effect i.e. there are region and general events, lack of delivery forecast accuracy, company’s policy setting, constraints of production, delivery lot sizing, and stock controlling. The way that may be effective to minimize the bullwhip effect are by getting an accurate information about shortage data at the sales centers, improve the company’s policies (such as pricing, discounts, promotions), improve delivery forecast system (Delivery Requirement Planning), and improve production and inventory management, especially to response the events which has big contribution to the sales.

Key words: Supply Chain Management, Bullwhip Effect, Demand Variability, Data Aggregation.