

INTISARI

Pengukuran *Bullwhip Effect* pada *Supply Chain* dengan Mempertimbangkan *Overall Equipment Effectiveness (OEE)* di Tingkat *Manufacture* dan *Supplier*.

(Studi Kasus : PT Tridaya Sumber Rejeki, Sukoharjo)

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PT. Tridaya Sumber Rejeki memiliki permasalahan yaitu tidak menentunya order dari ritel (Luwes Group) untuk produk kacang kulit dua kelinci dan kacang sukro dimana jumlah permintaan yang lebih tinggi dari persediaan untuk produk kacang kulit di bulan Juni tahun 2015, dan ada situasi dimana jumlah persediaan lebih tinggi dibanding jumlah permintaan untuk produk kacang sukro dibulan Juli tahun 2015 sehingga menyebabkan terjadinya *bullwhip effect*.

Pada penelitian ini digunakan metode simulasi dengan tingkat kendala OEE (*overall equipment effectiveness*) yang berbeda yang nantinya akan dipilih alternative terbaik bagi perusahaan. Mengukur *bullwhip effect* dan *net stock amplification* dalam *supply chain* di distributor (PT. Tridaya Sumber Rejeki) dan ritel (Luwes Group).

Hasil penelitian ini didapatkan alternative terbaik pada simulasi ke 4 dengan memper timbangkan OEEs dan OEE_m 100% dimana *bullwhip effect* pada kacang kulit dua kelinci dipola *seasonal* didapat hasil sebesar 1,01 dan dipola *deseasonal* didapat hasil 8,13. Untuk *bullwhip effect* produk kacang sukro dipola *seasonal* didapatkan hasil 1,00 dan dipola *deseasonal* didapat hasil 8,55. Hasil *net stock amplification* pada simulasi ke 4 dipola *seasonal* produk kacang kulit dua kelinci didapat hasil 0,025 dan dipola *deseasonal* didapat hasil 0,43. Untuk hasil *net stock amplification* produk kacang sukro dipola *seasonal* didapat hasil 0,013 dan dipola *deseasonal* didapat hasil 0,12.

Kata kunci : *supply chain management*, *bullwhip effect*, *overall equipment effectiveness*, *net stock amplification*.

ABSTRAK

Measurements Bullwhip Effect in the Supply Chain by Considering the Overall Equipment Effectiveness (OEE) at the Level of Manufacture and Supplier. (Case of Study: PT. Tridaya Sumber Rejeki, Sukoharjo)

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PT. Tridaya Rejeki have problems that the uncertainty of orders from retail (Luwes Group) for products kacang kulit dua kelinci and kacang sukro where the demand is higher than supply for products pea skins in June 2015, and there are situations where the amount of inventory is higher compared to the amount of demand for peanut products sukro in July 2015, causing the bullwhip effect.

This research used simulation methods with constraint level OEE (overall equipment effectiveness) different natinya will be chosen the best alternative for the company. Measuring bullwhip effect and the net stock of amplification in the supply chain in the distributor (PT. Tridaya Sumber Rejeki) and retail (Luwes Group).

This research used simulation methods with constraint level OEE (overall equipment effectiveness) are different, which will be chosen the best alternative for the company. The results of this study, the best alternative in the simulation to 4 to take into account the OEEs and OEE_m 100% where the bullwhip effect on kacang kulit dua kelinci in the seasonal pattern of results obtained 1,01 and in the pattern of results obtained deseasonal 8.13. For the bullwhip effect kacang sukro products in the seasonal pattern of results obtained in the pattern deseasonal 1.00 and 8.55 the results obtained. The results of the simulation net stock amplification to 4 in the seasonal pattern kacang kulit dua kelinci 0.025 and the results obtained in the pattern of results obtained deseasonal 0.43. For the net stock of amplification products in a pattern kacang sukro sesonal 0,013 and the results obtained in the pattern of results obtained deseasonal 0.12

Keywords : supply chain management, bullwhip effect, overall equipment effectiveness, net stock amplification