

## **ABSTRACT**

Global electrical equipment market will be increasing for the next years. However, fluctuating costs of raw materials could pose a challenge to the growth of this market. PT. Nikkatsu Electric Works as one of the electrical equipment company require strategic planning of raw material to meet market demands which expected to continue growing. Lot sizing technique is a technique to determine a lot size which balancing between ordering cost and storage cost to fulfill the net requirement of raw material. This study will compare several lot sizing techniques in accordance with the conditions of the company, which is lot for lot (LFL), Economic Order Quantity (EOQ), Least Total Cost (LTC), Least Unit Cost (LUC), Part Period Balancing (PPB), and Within Wagner algorithm. Analysis showed that lot for lot techniques and Wagner Within algorithm are the most suitable technique to be applied in the company. The results showed that Wagner Within algorithm is the most appropriate technique for raw materials planning. Wagner Within algorithm is able to produce lower inventory costs compared to lot for lot techniques.

Keywords: lot sizing technique, lot for lot (LFL, Wagner Within algorithm, inventory cost