ABSTRACT

This research aims to find the related causes of the high inventory cost and forecasting errors. It also proposes the solutions to reduce inventory cost by applying quantitative forecasting model which helps improve forecasting accuracy.

From the selected data, this research found that more than 50% of inventory cost came from two main products, i.e., frozen squid and frozen beef offal, which valued more than 95 million baht in 2015-time period. A cause and effect diagram was made to understand the root causes of dead stock. The biggest causes to the problem were current forecasting model that occurred more that 25% error (MAPE), the as-is forecasting model of the ABC Company was studied in detail.

The researcher proposed to use the economic order quantities and re-order point to optimize order quantity. The result indicates that the proposed solution can reduce over 50 million baht of inventory cost as well as decrease forecasting error from 20.66% to 10.91%.