Abstract

In many company, inventory management become a very critical and important factors in contributing the success of the company. Inventory is an asset that it should be managed properly. If it is too low then it will be very difficult to the company to give good service to the customer and maintain the market share, but if it is too high, it will affect the company cash flow. The main objective is how to maintain the inventory in a proper level.

This thesis is discussing the alternative solution how to managed inventory using dynamic buffer inventory level based on sales projection quantity. This application consists of several important modules such as forecasting module, cost calculation module, ordering module. The forecasting module consist of forecasting module itself which will take responsible to forecast the future demand using quantitative forecasting method, feedback module will always compare the forecasted result and the sales realization. The result from forecasting module will be used to calculate the total cost for the inventory required to achieve certain service level. The ordering module will create order to refill the buffer inventory. This module has order refine module that make adjustment according to the requirement from the supplier and also make adjustment in order to make efficiency in shipment and cost.

This system will reduce the excess inventory, it will help the company to fulfill the supplier requirement and manage the efficient order, and it has also early warning facility. Inventory planning can be done accurately by using proper forecasting method, Weighted Moving Average with four months period in this case.

Keyword: Inventory, Management, Forecasting, Sales, Quantitative