ABSTRACT

This case study is about construction fittings of trading company whose warehouse contained both active stock and dead stock. The company's dead stock is currently a cause of profit losses to the company and this research work will propose solutions to reduce the dead stock by applying the DMAIC concept.

The DMAIC approach is recognized as an effective tool to solve the problem at its root cause. In this case study, data between June 2012 and May 2013 had been used. It was found that 12.95% of the total stock is dead, which valued approximate THB1.7 million. Moreover, 79% of dead items by value came from Retail Business and 21% came from Project Business respectively. Therefore, dead items from Retail business were chosen and studied further and Pareto Analysis was applied to Retail Business's dead stock to narrow down the focus. The 80% highest value Retail dead items consisted of 34 items and were selected to analyze further to get the root cause of the problem. A cause and effect diagram was made to understand the root causes of dead stock. The biggest causes to the problem were obsolescence, customer changed their mind, and a sales forecast error. The as-is process of these 3 causes was studied in detail. Creative solutions to eliminate the key root causes are developed in order to fix and prevent a process problem. Controlling the improvement process is also developed to ensure the sustainable reduction of dead stock.

The result indicates that the proposed strategy can help sustain dead stock reduction of the company. Thus, DMAIC is one of most effective problem solving tools to solve the problem at the root cause.