

ABSTRACT

This study is a case study of an eyeglasses distributor. The company is facing the problem of increasing dead stock and defective product inventory at the end of year from 2011 to 2012. Speeding up to find the root causes of the problem can increase the company's profitability and turnover. By applying the DMAIC concept, the problem can be made visible to all related parties in the company based on reviewing the historical data and interviewing with the cross-functional team to understand the current situation and process.

The DMAIC concept consists of define, measure, analyze, improve and control. Utilizing this tool helped the team find out the problem and the extent of the problem and understand the root causes of the problem. In this project, the methodology had been broken into two parts, the data collection and the data analysis. The historical data from the year 2011 to 2012 was reviewed to see the trend of the overall frames and sunglasses dead stock and the defective product inventory occurrence. The result showed that DC metal frames dead stock and defective product inventory was the highest value worth 59% of DC Frames dead stock and defective product value (around one million THB). To scope down the focus, Fishbone Analysis was used to understand the root causes of the problem by cross-functional team's brainstorming. Pareto Analysis was applied to focus on the top 80% value of the reason. The result was that there are 69 stock keeping units of DC's Metal Frames dead stock and defective products which consisted of 21 stock keeping units of the Outdated Occurrence blocking 357,597.61 THB, 19 stock keeping units of the Rejected Return by Supplier blocking 319,169.04 THB and 15 stock keeping units of the Customer Return Order blocking 240,693.20 THB. The meeting between related parties had been set up to understand the problem areas in the as-is process and the to-be process was proposed to reduce the dead stock and defective product accumulation. Controlling the new system ensures that continuous improvement is sustained. To implement the five new processes can reduce 81% of the dead stock and defective product inventory.