

ABSTRACT

This case study is about the warehouse of ABC Company confronted with a problem about inventory inaccuracy. The inventory inaccuracy is a cause of customer low satisfaction. Therefore, in this research, Define-Measure-Analyze-Improve-Control (DMAIC) methodology was applied to improve the inventory inaccuracy.

The warehouse of ABC Company got the lowest score in the 2015 customer survey about inventory in Systems, Applications and Products (SAP) system accuracy with on-hand inventory. This has affected the internal customers by not having the products to maintain in the power plant. The sampling result showed that the inventory accuracy was around 45%. Moreover, the result showed not only the inventory inaccuracy but also the storage location inaccuracy, which the storage location accuracy was around 22%. The major cause of this problem came from the workers' lack of skills to maintain data in SAP system. After the root causes had been exposed, the improvements were developed in order to solve and prevent the problem. Controlling the improvement process has also been developed to ensure that the improvement is sustained and the ongoing performance is monitored.

The improvement result shows that the proposed solution can be accomplished to solve the problem. The DMAIC methodology can help the warehouse to improve its inventory accuracy. Therefore, the DMAIC methodology is an effective tool to improve the process and reduce negative outcomes effectively.