

## **Productivity improvement by using lean manufacturing tools: A case study on the Jishu Hozen implementation**

### **ABSTRACT**

Manufacturing industries rely heavily on machineries and equipment which works to keep up with customer demands. Thus, with the amazing discovery of Lean manufacturing tools, plant maintenance strategy has been more systematic than previous years which had led to improved equipment efficiency. The aim of this paper is to study the impact of Total Productive Maintenance (TPM) implementation on productivity improvement with special focus on the Jishu Hozen (JH) concept. The case study was conducted at two manufacturing companies from two different countries (South Korea and Malaysia), which are Donghai Holesaw Co. Ltd and Kien Nan Industrial Sdn. Bhd., respectively. Implementation of the 7-steps of JH were conducted a month before data collection, then monitoring is conducted for a period of four months. From the results obtained, Donghai Holesaw had an availability, performance, and quality rating of 98.13%, 80.82% and 98.86% respectively whereas Kien Nan Industrials had ratings of 98.26%, 82.89% and 96.10%, respectively. These indicate that the bottleneck departments of Donghai Holesaw Co. Ltd. and Kien Nan Industrial Sdn. Bhd. had improved their Overall Effectiveness Efficiency (OEE) to 78.40% and 78.27% respectively. However, they are still far from the world class rating of 85%. Overall, it can be concluded that the implementation of JH was able to improve overall productivity of the companies.