## ABSTRACT

Today's business world is getting more competitive. Companies, especially manufacturing ones try to give the best to their consumers with good quality products and affordable prices. Therefore, every manufacturing company should be smart in devising and applying a precise strategy to support its production process. This thesis covers TPM (Total Productive Maintenance) strategy which can significantly improve all aspects on the production process, such as equipment, cost, product delivery, labors and defect levels. Applying the TPM strategy correctly will lead to a better production performance and keep the existence of a manufacturing company as well.

The hypothesis test uses a paired sample t-test in an SPSS analyzing tool. By using secondary data, that is, data from production department which involves production capacity, the number of labor, breakdown, and so forth, P.T. Hartono Istana Teknologi (POLYTRON) is taken as the sample. The test compares all production performance within 3 years before and after the application of TPM.

After applying the TPM strategy, the analysis by using a paired sample ttest in an SPSS analyzing tool results in a significant improvement on the effectiveness of equipment, cost, labors and defect level, compared to the situation before applying the TPM strategy with 95% significance degree ( $\alpha$ ). The production performance after applying the TPM strategy will help the whole performance of a manufacturing company.

Key words: TPM, equipment, cost, product delivery, labor, defect levels