

Jirawit Kaewwachabuth 2012: An Application of the Unified Theory of Acceptance and Use of Technology (UTAUT) for Total Productive Maintenance (TPM) : A Case Study of Packaging Manufacturing. Master of Engineering (Engineering Management), Major Field: Engineering Management, Faculty of Engineering Sri Racha. Thesis Advisor: Professor Emeritus Ampika Krairit, M.S. 273 pages.

The research aims to improve and develop the efficiency of personnel in organization in order to be a significant factor in increasing productivity and raising the value added to the organization by utilizing the Total Productive Maintenance activity (TPM activity). Therefore, the researcher has applied the Unified Theory of Acceptance and the Use of Technology (UTAUT) to investigate the relevant factors including seeking the solutions by utilizing the Structural Equation Modeling (SEM). In analyzing the internal factors of the SEM model, the researcher has utilized the Statistical Analysis Techniques in Social and Behavioral Sciences from the Linear Structure Relationship Program (LISREL). The result of the analysis showed that the most influential factor for the acceptance and participation of the workers in the activity was Social Influence (SI). The researcher then formulated strategies to develop the behavior of the workers and to measure the achievement of improvement into three aspects: improving the Overall Equipment Effectiveness (OEE), the activity involvement of the workers, and the readiness of the workers in performance.

The results showed that the Overall Equipment Effectiveness has improved up to 8.33%. The participation of the workers was measured by the rate of finding and fixing Fuguai after improvement it was found to increase by 275 Fuguai and 128 Fuguai, equivalent to 183.33% and 85.33% respectively. In addition, a number of One Point Lessons (OPLs) after development increased by 282 lessons or 268.57%. Besides, a number of the Kaizen suggestions after the improvement increased by 391.07% from 219 suggestions and in the preparedness of the workers it was found that, after training, the average of the readiness of the workers to perform increased to 93.60%.

Student's Signature

Thesis Advisor's Signature