ABSTRACT

This study aims at developing the empirical Knowledge Retention Model to capture and retain the embedded knowledge of the knowledge worker, and transfer this knowledge to be an organizational knowledge to prevent a brain drain problem. This research is focused on the knowledge management approach, which tries to let everything rely on the system and does not concern with people.

This research contributes to the development of Knowledge Retention Model by analyzing the job of the knowledge worker and designing the overall process chart of the job. This research is identifying the knowledge factors, which the worker will not be able to produce the output of the job, when the worker lacks of these factors and also identifying the skill factors, which is added to let the worker improve their job performance indicator according to an evaluation parameter such as time reduction.

These knowledge factors and skill factors will lead to the brainstorming among the group of experts. The researcher has used the statistical technique to prove and evaluate them. To prove the knowledge factors and the skill factors, the researcher has used a Hypothesis testing. Then, the researcher has used a Design of Experiment (DOE), One Way ANOVA, and Fisher's Least Significant Difference method to find out the relationship among skill factors that contribute to job performance indicator. Finally, the researcher has used the Statistical Process Control (SPC) to identify the average, maximum, and minimum time consumed to accomplish the job and compare with the expert performance in order to evaluate the effectiveness of the model. The dissertation closes with the conclusions of this Knowledge Retention Model and proposes useful recommendations.