

Suchat Bunnan 2012: The Study of Relationship Between Project Management and Material Requirement Planning for Cost Reduction : A Case Study of Metal Forming Industry. Master of Engineering (Engineering Management), Major Field: Engineering Management, Faculty of Engineering at Si Racha. Thesis Advisor: Miss Sirang Klankamsorn, Ph.D. 174 pages.

The objective of this research is to investigate the relationship between the project management and the material requirement planning in a metal forming industry. The principle of project management and material requirement planning are applied to plan the material demand, the ordering schedule, the receiving schedule and the inventory management. The aim of the planning is to relate and integrate all activities of the project. The target is to reduce the inventory cost and project management total cost. In addition, the efficiency of asset management and competition potential can be increased. The critical path method and the material requirement planning are utilized to determine the material purchasing schedule by the project plan. The schedule depends on the critical path in which the material receiving is followed by the determined schedule.

The results show that the application among the project management, the critical path method and the material requirement planning can reduce the inventory cost by 49.65%, reduce the storage area by 22.63% and reduce the inventory holding cost by 7.85%. it can be concluded in that the project management and the material requirement planning has a significant relationship to smooth the project management plan and can reduce the total cost of project management.

Keyword : Project management, Material Requirement Planning , Critical Path Method.

Student's signature

Thesis Advisor's signature