



DEVELOPMENT OF MRP FRAMEWORK FOR JOB SHOP ENVIRONMENT

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Material Requirement Planning (MRP) is the tool often used in operation management by production planner - plan the material procurement by type, required timeframe and quantity. The tool helps production planner to calculate the material requirement accurately and timely. However, material requirement planning is suitable for production environment like assembly line or Flow Shop. In the production environment like job shop or process layout where there are variation of products produced in the system, typical MRP framework struggles with resource requirements calculation such as machine hours, number of operators etc. in order to provide the accurate completion date.

Therefore, this research intend to develop an enhanced version of Material Requirement Planning by factoring in the flow of production process while creating production calculation using Microsoft Office Excel was developed to address this issue. From the analysis of efficiency in calculation table of the enhanced production table by considering only the overload, the researcher found that the overload yielded from new calculation table is more than traditional table. Moreover, when the percentage of overload is reducing, it still yields the overload number as well.