

UNIVERSITI TEKNOLOGI MARA

**PRODUCTIVITY IMPROVEMENT THROUGH
“NEXT CELL” APPROACH: A STUDY CASE AT
MOTOR WINDING ASSEMBLY LINE OF AIR
CONDITIONING COMPRESSOR**

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ABSTRACT

PRODUCTIVITY IMPROVEMENT THROUGH NEXT CELL APPROACH: A STUDY CASE AT MOTOR WINDING ASSEMBLY LINE OF AIR CONDITIONING COMPRESSOR

The objective of this study is to improve productivity of the assembly line in air conditioning compressor factory through Next Cell approach. One air conditioning compressor assembly factory had been chosen as a subject for the study. The subjects were non-productive (non-value added) jobs at the assembly section of the factory. The element examined was the productivity level which affected by non-productive or waste of the raw material, work-in-process, process cycle time and human motion. Four sets of data were collected during the study. The raw material and work-in-process data for the entire line were collected while the process cycle time and operator motion was analyzed and simulated by using line balancing and “Standard Operation Combination Table” (SOCT). The total line efficiency and productivity index was calculated. The process cycle time and operator motion analysis were conducted in order to obtain the relationship between the productivity and non-productive job. As a result, there is the productivity improvement with the elimination or reduction of established non-productive job or waste.

Keywords: Productivity, Next Cell, non-productive job, waste, line balancing, Standard Operation Combination Table (SOCT),