EVALUATION OF COMPUTER INTEGRATED MANUFACTURING IN PT. PG CANDI BARU SIDOARJO

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ABSTRACT

Computer Integrated Manufacturing (CIM) is the integration of business, engineering, manufacturing and management information that spans company functions from marketing to product distribution (Hannam, 1997). This years, PT. PG Candi Baru Sidoarjo makes improvements gradually and leads to automation and company integration. These are done in line with the company's plans to increase its capacity. Indirectly, the company has implemented CIM. However, until now the company still has not evaluated the maturity of its manufacturing system. This research aims to help the company knowing the condition of its manufacturing system through evaluation of the maturity of the manufacturing system. This evaluation is started with collecting datas of business system and integration manufacturing system, interviewing the workers and manager, and assessing the manufacturing system. This assessment is based on fulfilling the SAQ (qualitative assessment) and validation assessment (quantitative assessment). Based on the results of data processing, the maturity of the systems is at level 5 with achieving 81.80%. The maturity of subcriterion Utilized Time vs Unutilized Time and criteria safety is at level 3. Level 4 is maturity level of subcriterion Valued Man Hours vs Unvalued Man Hours. Then, the maturity of subcriterion Operation Time vs Down Time dan Actual Time vs Theoritical Time is at level 5. Whereas the maturity of subcriterion Rejection Case by Quality Control, Rejection Case by Customer, criteria cost, delivery and transfer, and morality is at maximum level, level 6. From the result of achievement analysis, there are 46 points that need to be improved. The total of their root causes is 23 root causes. To make improvement, the company should improve 23 root causes. Based on the analysis, there are 23 recommendations for improvement. These recommendations is used to overcome 23 root causes.

Keywords : Computer Integrated Manufacturing (CIM), Computer Integrated Manufacturing for Open System Architecture (CIMOSA), Evaluation of Maturity Integrated Manufacturing, Industry Based Process, Root Cause Analysis (RCA)
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