

ABSTRACT

PT.XYZ is engaged in weaving business area until this company growing steadily into a textile company. Along with the rapidly economic growth, consumer needs are increasing so that demanding for production by the specified target. One method to reduce the losses that are likely to be responsibly by the company is to improve the Reliability, Availability and Maintainability from the production system itself and Cost of Unreliability to know how big the charge generated by the Reliability, Availability and Maintainability problem. Data such as Mean Time To Failure, Mean Time To Repair useful to assess system performance that works. From data result processing using the Reliability, Availability and Maintainability Analysis using reliability Block Diagram based on analytical approach, at 168 hours, the system has a value of Reliability (16%). Average value of Maintainability system at $t = 31$ hours was 91,47%. Inherent Availability value is 99.38% and the Operational Availability value is 98,94%. Based on the evaluations that has been done using the world-class maintenance Key Performance Indicator, indicators of leading and lagging availability has reached the target of given indicator. Result by using calculations Cost of Unreliability obtained that expenses caused by the unreliability system is Rp.2.315.005.900 active repair time and Rp.3.998.580.070 based on downtime.

Keywords: Availability, Cost Of Unreliability, Key Performance Indicator, Maintainability, Reliability, Reliability Block Diagram.