

ABSTRAK

Terjadinya *downtime* pada mesin Heidelberg SM 74 disebabkan dari waktu *setup* yang dibutuhkan dan mesin mengalami *maintenance* disaat produksi berlangsung. Hal ini menyebabkan jalannya produksi terganggu, apabila dibiarkan terus menerus dapat merugikan perusahaan. Kerugian disini dapat berupa waktu, biaya, dan kehilangan pelanggan. Metode yang digunakan pada penelitian ini untuk memperbaiki produktivitas mesin percetakan Heidelberg SM 74 yaitu menggunakan *Overall Equipment Effectiveness* (OEE) dan *Faillure Mode Effect Analysis* (FMEA) . Hasil dari penelitian perhitungan nilai *Overall Equipment Effectiveness* (OEE) pada mesin percetakan Heidelberg SM 74 dari bulan Maret 2021 – Februari 2022, paling besar terdapat dibulan Maret sebesar 27,94% nilai OEE mesin Heidelberg SM 74 masih dibawah standar belum mencapai standar yang ditetapkan oleh *Japan Institute of plant Engineer* untuk nilai OEE sebesar >85%. Kemudian dilakukan analisa menggunakan *Ishikawa diagram* dengan menggunakan faktor material, measurement, manusia, lingkungan, mesin, dan metode. Setelah dilakukan analisa melakukan pengisian tabel FMEA untuk mengetahui nilai *Risk Priority Number* tertinggi dihasilkan terdapat pada faktor utama mesin dan metode.

Kata Kunci : Percetakan, produktivitas mesin, *downtime*, *Overall Equipment Effectiveness* (OEE), *Faillure Mode Effect Analysis* (FMEA).

ABSTRACT

The occurrence of downtime on the Heidelberg SM 74 machine is caused by the setup time required and the machine undergoes maintenance during production. This causes the course of production to be disrupted, if allowed to continue it can harm the company. Losses here can be in the form of time, cost, and loss of customers. The method used in this research to improve the productivity of the Heidelberg SM 74 printing machine is to use Overall Equipment Effectiveness (OEE) and Failure Mode Effect Analysis (FMEA). The results of the research on the calculation of the Overall Equipment Effectiveness (OEE) value on the Heidelberg SM 74 printing machine from March 2021 - February 2022, the largest was in March of 27.94% the OEE value of the Heidelberg SM 74 machine was still below the standard that had not yet reached the standard set by Japan Institute of Plant Engineer for an OEE value of >85%. Then analysis using Ishikawa diagram contained material, measurement, human, environmental, machine, and method factors. After doing the analysis, filling in the FMEA table to find out the highest Risk Priority Number value generated is found in the main factors of the machine and method.

Keywords: Printing, machine productivity, downtime, Overall Equipment Effectiveness (OEE), Failure Mode Effect Analysis (FMEA).