

ABSTRAK

Pertumbuhan ekonomi Indonesia di tahun 2021 di tengah terjadinya pandemik covid-19 semakin membaik. Hal ini disumbangkan oleh sektor industri otomotif yang menjadi empat besar kontribusi terbesar sektor industri. Didalam produksi industri otomotif, efisiensi dan keefektifan merupakan faktor utama agar dapat menghasilkan produk yang berkualitas. *Total Productive Maintenance* (TPM) berkontribusi meningkatkan efisiensi dalam proses produksi. Kontribusi TPM dalam industri manufaktur juga mengarah pada peningkatan kinerja organisasi untuk menghadapi tantangan global. TPM terdiri dari delapan pilar penerapan yang dilakukan secara menyeluruh. Penelitian ini bertujuan untuk merancang instrumen pengukuran tingkat penerapan TPM di era digital pada industri otomotif dan juga memberikan usulan strategi perbaikan untuk meningkatkan penerapan TPM. Dilakukan FGD, kuesioner, dan uji validitas terhadap instrumen pengukuran. Hasil instrumen pengukuran valid dan reliabel. Instrumen pengukuran diaplikasikan pada industri otomotif di Cikarang. Hasil dari kuesioner tersebut didapatkan bahwa belum semua pilar TPM diterapkan dengan baik. Tiga pilar penerapan terendah yaitu pilar *autonomous maintenance* dengan bobot nilai 44%, pilar *focused improvement* dengan bobot nilai 60%, dan pilar *training & education* dengan bobot nilai 59%. Lalu dilakukan analisis dengan *Focus Group Discussion* (FGD) kepada beberapa responden dan analisis 5W2H serta *Why-Why Analysis*. Didapatkan dua kasus yang memiliki akar penyebab dari tidak diterapkannya pilar *autonomous maintenance* dengan baik. Diberikan usulan dan strategi untuk peningkatan penerapan TPM dengan memulai perbaikan dari tiga pilar terendah secara bertahap lalu dapat dilanjutkan ke pilar lainnya. Juga melakukan *benchmarking* serta edukasi terkait enam belas kerugian kronis *kobetsu kaizen*.

Kata kunci : *Total Productive Maintenance* (TPM), *autonomous maintenance*, delapan pilar TPM, *Why-Why Analysis*, 5W2H.

ABSTRACT

Indonesia's economic growth in 2021 amidst the Covid-19 pandemic is getting better. This was contributed by the automotive industry sector which became the top four largest contributors to the industrial sector. In the production of the automotive industry, efficiency and effectiveness are the main factors in to produce quality products. Total Productive Maintenance (TPM) contributes to increasing efficiency in the production process. TPM's contribution to the manufacturing industry also leads to increased organizational performance to face global challenges. TPM consists of eight implementation pillars that are carried out thoroughly. This study aims to design an instrument for measuring the level of TPM implementation in the digital era in the automotive industry and also to propose improvement strategies to increase TPM implementation. FGDs, questionnaires, and validity tests were carried out on measuring instruments. The results of measurement instruments are valid and reliable. The measurement instrument is applied to the automotive industry in Cikarang. The results of the questionnaire found that not all TPM pillars were properly implemented. The three pillars with the lowest implementation are the pillar of autonomous maintenance with a weight of 44%, the pillar of focused improvement with a weight of 60%, and the pillar of training & education with a weight of 59%. Then an analysis was carried out with a Focus Group Discussion (FGD) with several respondents and a 5W2H analysis and Why-Why Analysis. Two cases were found that had root causes of the autonomous maintenance pillar not being implemented properly. Suggestions and strategies are given to increase the implementation of TPM by starting improvements from the three lowest pillars in stages and then continuing to other pillars. Also doing benchmarking and education regarding the sixteen chronic losses of kobetsu kaizen.

Keywords : Total Productive Maintenance (TPM), autonomous maintenance, eight pillars of TPM, Why-Why Analysis, 5W2H.