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## A study of total productive maintenance (TPM) and lean manufacturing tools and their impact on manufacturing performance (Article)

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### Abstract

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In Indonesia, companies that have correctly implement TPM and LM are still very limited. They also implement TPM without being integrated with LM. To look beyond their implementation and their impact to manufacturing performance, a research through survey method have been conducted. The 250 questionnaires have been sent to 125 manufacturing companies located in Jakarta, Bekasi, Tangerang, Bandung and Lampung. 105 have been returned but only 91 questionnaires suitable for further processing using Structural Equation Modelling (SEM) with Smart-PLS as a programming tool. Almost all of 8 Pillars of TPM were considered valid, reliable and significant to represent the TPM implementation in Indonesia. All of 8 LM tools were also considered valid, reliable and significant. TPM have a strong correlation with LM and a moderate correlation with MP. LM also has moderate correlation with MP. TPM pillars and LM tools together affect MP as much as 60.9% ( $R^2 = 0.609$ ). It also means that 60.9% variability of MP can be explained by TPM and LM while 39.1% can be explained by others. © BEIESP.

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