

**IMPACT OF MAINTENANCE MANAGEMENT PORTAL (MMP)
IMPLEMENTATION ON PERIODICAL SERVICE LEAD TIME
ACCURACY: A CASE STUDY ON THE KOMATSU HD785-7 IN THE
TANJUNG ENIM COAL MINE**

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STATEMENT BY THE AUTHOR

I hereby declare that this submission is my own work and to the best of my knowledge, it contains no material previously published or written by another person, nor material which to a substantial extent has been accepted for the award of any other degree or diploma at any educational institution, except where due acknowledgement is made in the thesis.



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ABSTRACT

IMPACT OF MAINTENANCE MANAGEMENT PORTAL (MMP) IMPLEMENTATION ON PERIODICAL SERVICE LEAD TIME ACCURACY: A CASE STUDY ON THE KOMATSU HD785-7 IN THE TANJUNG ENIM COAL MINE

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The research at UT FMC Tanjung Enim focused on the impact of implementing the Maintenance Management Portal (MMP) on maintenance performance, specifically the Periodical Service (PS) lead time accuracy of the Komatsu HD785-7 unit. The study, employing P-M analysis, verified that MMP significantly improved PS lead time accuracy from 71.9% to 96.2%. MMP's success can be attributed to its features such as enhanced data integrity, improved planning and scheduling accuracy, and automated task management. Beyond these improvements, MMP generated substantial benefits for FMC Business, especially raising Overall Equipment Effectiveness (OEE) from 59.9% to 89.2%, surpassing the targeted enhancement, and reducing PS rework, resulting in significant time and resource savings. The research highlights MMP's transformative impact on maintenance practices, fostering a culture of proactive and data-driven decision-making. This study positions MMP as a catalyst for digital transformation in maintenance management, offering a model for organizations seeking to improve lead time accuracy and elevate overall business performance through efficient and integrated digital solutions. The findings contribute valuable insights to the broader field of operational excellence and sustainable business practices.

Keywords: Maintenance Management, CMMS, P-M Analysis, OEE, Periodical Service Leadtime Accuracy.

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DEDICATION

I dedicate this Thesis to my parents, Subarkah and Siti Wardah, for all their prayers, support and never-ending love. Thank you for raising me with love and affection, and always guiding me to become a better person.

I also dedicate this Thesis to Swiss German University as a requirement to complete education in the Program Study Master of Mechanical Engineering, Faculty of Engineering & Information Technology. Hopefully this research can make a positive contribution to the progress of science and technology and can help improve the quality of education and industry in Indonesia.

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