

**IMPACT OF LEVELING CUSTOMER OPERATION
THROUGH OBSERVATION BASED ANALYSIS
TO ENHANCE CUSTOMER PRODUCTIVITY
IN LEADING INDONESIAN HEAVY EQUIPMENT COMPANY**

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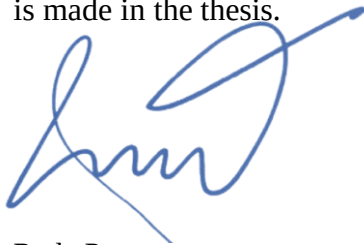


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STATEMENT BY THE AUTHOR

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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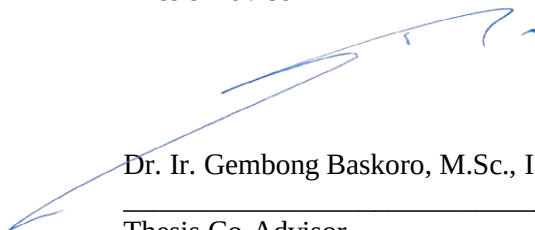


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ABSTRACT

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This thesis aims to improve customer productivity by leveling operator working method and machine working conditions in a leading Indonesian heavy equipment company. The research design is a case study of the customer's operation management, focusing on the Komatsu PC2000 model. The thesis applied the DMAIC (Define, Measure, Analyze, Improve, and Control) methodology combined with value stream mapping, design thinking, and statistical data analysis to identify the root causes of the productivity gap, propose a customer operation improvement program, and develop a mobile app that collects and analyzes observation data of the equipment operation process. The research results show that the implementation of an operation guidebook and an observation-based approach can enhance customer operational excellence and achieve higher productivity, lower cycle time, better operator skill, and higher customer satisfaction index. The thesis also discusses the benefits and challenges of using an observation-based approach and provides recommendations for future research, such as fuel analytics and machine optimization.

Keywords: Customer Productivity, Operation Guidebook, Observation Based Approach, DMAIC, Value Stream Mapping, Design Thinking.

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DEDICATION

I dedicated this work for my beloved wife & children who supporting me to finish this study and to management of PT United Tractors Tbk who gave me this opportunity.

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