IMPROVE OVERALL EQUIPMENT EFFECTIVENESS (OEE) THROUGH REAL-TIME MANUFACTURING PERFORMANCE MANAGEMENT SYSTEM IN PHARMACEUTICAL INDUSTRY

By

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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

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The purpose for this study is improving Overall Equipment Effectiveness (OEE) through real-time manufacturing performance management system in pharmaceutical industry. Real-time performance management system can improve manufacturing process effectiveness about 10% depending on manufacturing complexity and current OEE baseline. This research show 9.5% OEE improvement from 49.74% to 59.24% and reduce production cost by minimizing losses during manufacturing.

Real-time performance manufacturing system visualizes real-time OEE to identify any possible causes of losses in manufacturing operations to be an actionable improvement process and quantifies how well a manufacturing unit performs relative to its designed capacity, during the periods when it is scheduled to run.

Keywords: Overall Equipment Effectiveness (OEE), Manufacturing Performance Management System, Real-time OEE.

DEDICATION

I dedicate this works for my beloved wife Dian Dianawati and daughter Cahaya Praya Rahmadani.

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I had lesson learned my coursework throughout the Curriculum and Instruction program to stimulate and create frameworks which provide me with the tools to explore both past and present ideas and challenges.

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