



UNIVERSITY OF INDONESIA

BUSINESS PROCESS IMPROVEMENT TO INCREASE  
PRODUCTIVITY AND CAPACITY TO MEET HIGHER  
DEMANDS ON HYDRAULIC EXCAVATOR 20 TON AT PT ABC

**THESIS**

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FACULTY OF ECONOMICS  
MAGISTER OF MANAGEMENT PROGRAM  
MANAGEMENT BUSINESS INTERNATIONAL  
JAKARTA  
JUNE 2010



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**THESIS**

Submitted to fulfill one of the requirements to obtain degree of  
Magister Management

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## STATEMENT OF ORIGINALITY

This final paper represents my own effort, any idea or excerpt from other writers in this final paper, either in form of publication or in other form of publication, if any, have been acknowledged in this paper in accordance to the academic standard or reference procedures

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## **ABSTRACT**

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Program Study : Magister Management – MBA  
Judul : Perbaikan Proses Bisnis Dalam Rangka Peningkatan Produktifitas dan Kapasitas Untuk Memenuhi Permintaan Hydraulic Excavator Tipe 20 Ton di PT ABC.

Permintaan akan mesin Hydraulic Excavator (HEX) dengan kapasitas kerja 20 ton sangat tinggi di pasar Asia, hampir sebagian besar produk alat berat dari PT ABC saat ini diarahkan ke pasar Indonesia. Saat ini, PT ABC membutuhkan proses perbaikan bisnis untuk meningkatkan kapasitas produksi dalam rangka mendukung pertumbuhan pasar. Kemampuan terpasang di PT ABD adalah 660 mesin dalam satu tahun, sedangkan rencana alokasi dari pusat saat ini adalah 1080 mesin pada 2011 dan 1700 mesin pada 2012, melihat situasi yang ada PT ABC belum dapat memenuhi permintaan tersebut.

Setelah melihat proses kerja, disimpulkan bahwa ada banyak peluang perbaikan untuk meningkatkan kapasitas produksi dengan cara menghilangkan proses-proses yang tidak perlu serta penerapan sistem lean manufacturing untuk mencapai target perbaikan sebesar 10 % di 2010. Setelah proses kerja maksimal, akan dilihat kebijakan untuk investasi serta kemungkinan bisnis di ASEAN. Sebuah kebijakan investasi yang tepat akan meyakinkan sebuah perusahaan hanya membuat investasi yang dibutuhkan memberikan dampak cost yang lebih murah dan bernilai pada saat penyaluran product ke pasar asia tenggara.

**Key Words:**

Current State Value Stream Mapping, Future State Value Stream Mapping, Cycle Efficiency, Takt Time, Wastes, 6 Sigma, Internal Rate Return, Net Present Value, Common Effective Preferential Tariff.

## **ABSTRACT**

Name : Heru Widjianto  
Program Study : Magister Management – MBA  
Title : Business Process Improvement to Increase Productivity And Capacity to Meet Higher Demands on Hydraulic Excavator 20 Ton at PT ABC

The requirement of Hydraulic Excavator (HEX) machines with the operating weight 20 tons very significant in Asia Market, while most of PT ABC products currently supplies only for Indonesia market. Currently, PT ABC required the business improvement process to support with the investment strategy identified which will provide production capacity to support the requirements of HEX 20 Ton growth. Current demonstrated capacity is 660 machines while the allocation production from corporate is 1080 per year on 2011 and 1700 per year on 2012, with this condition PT ABC production line does not capable meet with the customer demand. After reviewed to the production process flows, found the opportunities to improve the current production capacity by eliminating waste, and implementing lean concepts to achieve targeted capacity improvement for 10% in 2010. The investment strategy reviewed after maximized the production capacity and looking the business opportunity in ASEAN. An intelligent investment strategy will insure that the company only makes the investment requirement that would delivered lowest product cost and made the benefit to supply South East Asia market.

**Key Words:**

Current State Value Stream Mapping, Future State Value Stream Mapping, Cycle Efficiency, Takt Time, Wastes, 6 Sigma, Internal Rate Return, Net Present Value, Common Effective Preferential Tariff.

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## PREFACE

If thousand words can not describe a picture, then even thousand pictures will not enough to describe my feeling when this project report was finished. Nothing would be more relieving than getting one step closer to the end of the MM MBA program. What I was before, I am now and I will be someday is pretty much influenced by my surroundings. They all have significant impact to the course of my journey, and for that, I would like to give my warmest and sincerest thanks to these following individuals.

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If every end is actually a new beginning then this report, along with all of its imperfection, should never end at the moment when study time ends.

Constructive critic, suggestions, and recommendation would cover the knowledge's constrain reflected in this report. It would also help its development in to something better, more complete, and needless to say, more useful. By this, hopefully, this report would at least, not follow the same faith as others – lost and forgotten in the silence of time.

Jakarta, June 2010

Author

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