

**PERFORMANCE MEASUREMENT IN THE HEALTHCARE
SUPPLY CHAIN**

USA KERDKING

**A THESIS SUBMITTED IN PARTIAL FULFILLMENT
OF THE REQUIREMENTS FOR
THE DEGREE OF MASTER OF ENGINEERING
(INDUSTRIAL ENGINEERING)
FACULTY OF GRADUATE STUDIES
MAHIDOL UNIVERSITY
2012**

COPYRIGHT OF MAHIDOL UNIVERSITY

Thesis
entitled
**PERFORMANCE MEASUREMENT IN THE HEALTHCARE
SUPPLY CHAIN**

.....
Miss Usa Kerdking
Candidate

.....
Asst. Prof. Thanakorn Naenna,
Ph.D. (Engineering Science)
Major advisor

.....
Asst. Prof. Tanawut Tantimongcolwat,
Ph.D. (Medical Technology)
Co-advisor

.....
Prof. Banchong Mahaisavariya,
M.D., Dip Thai Board of Orthopedics
Dean
Faculty of Graduate Studies
Mahidol University

.....
Asst. Prof. Thanakorn Naenna,
Ph.D. (Engineering Science)
Program Director
Master of Engineering Program
In Industrial Engineering
Faculty of Engineering,
Mahidol University

Thesis
entitled
**PERFORMANCE MEASUREMENT IN THE HEALTHCARE
SUPPLY CHAIN**

was submitted to the Faculty of Graduate Studies, Mahidol University
for the degree of Master of Engineering
(Industrial Engineering)

on
May 23, 2012

.....
Miss Usa Kerdking
Candidate

.....
Assoc. Prof. Tuanjai Somboonwiwat,
Ph.D. (Industrial Engineering)
Chair

.....
Asst. Prof. Thanakorn Naenna,
Ph.D. (Engineering Science)
Member

.....
Asst. Prof. Tanawut Tantimongcolwat,
Ph.D. (Medical Technology)
Member

.....
Prof. Banchong Mahaisavariya,
M.D., Dip Thai Board of Orthopedics
Dean
Faculty of Graduate Studies
Mahidol University

.....
Lect. Worawit Isarangkul,
M.S. (Technical Management)
Dean
Faculty of Engineering
Mahidol University

ACKNOWLEDGEMENTS

This thesis is financially supported through a grant by Office of National Research Council of Thailand.

This thesis is partially supported by Graduate Studies of Mahidol University Alumni Association.

The success of this thesis can be succeeded by the attentive support from my major advisor, Asst. Prof. Dr. Thanakorn Naenna. I would like to express my appreciation and deeply thank him for the valuable advices and several suggestions reinforced my perception and knowledge to practice this research.

I would like to express my appreciation and deeply thank to Assoc. Prof. Tuanjai Somboonwiwat, the external examiner of the thesis defense and Asst. Prof. Dr. Tanawut Tantimongcolwat for their kindness in valuable suggestion and time sacrifice through this study.

Thank to my friends and staffs in Industrial Engineering department Mahidol University, for their help, kindness, support and cooperation during this study.

Finally, I am grateful to God and my family, especially my parents for unconditional support, entirely care, love and encouragement through my life. I would like to thank all of those who I have not listed above.

Usa Kerdking