IMPLEMENTATION OF A WAREHOUSE MANAGEMENT SYSTEM READY FOR INTEGRATION WITH AUTOMATED STORAGE AND RETRIEVAL SYSTEM IN A HOSPITAL PHARMACY WAREHOUSE: A CASE STUDY OF PONDOK INDAH HOSPITAL

By

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BACHELOR'S DEGREE

in

INDUSTRIAL ENGINEERING

FACULTY OF ENGINEERING AND INFORMATION TECHNOLOGY

SWISS GERMAN UNIVERSITY

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Revision after the Thesis Defense on August 6th 2015

STATEMENT BY THE AUTHOR

I hereby declare that this submission is my own work and to the best of my knowledge, it contains neither 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

Implementation of a Warehouse Management System Ready for Integration with Automated Storage and Retrieval System in a Hospital Pharmacy Warehouse: A Case Study of Pondok Indah Hospital

By

Hoki Michael Susanto
Ir. Invanos Tertiana, MBA, Advisor
Dr. Tanika D. Sofianti, ST, MT, Co-Advisor
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Nowadays, hospital services faces a lot of challenges. The rising number of patient and tight regulations force them to adapt and improvise. One of the most affected services is the hospital pharmacy warehouse. Their task is to provide the right drugs to the right people and at the right time. The aim of this study is to implement a Warehouse Management System (WMS) with Automated Storage and Retrieval System (ASRS) integration function to improve the efficiency, reliability and accuracy of their work. The implementation adopts System Development Life Cycle complemented by "Orchard" Software Implementation, Qualification and Selection of Open Source Software and System Development Life Cycle Prototype Model Methodology to provide steps and structure. This research started with defining the Software Requirement Specification (SRS) of WMS for warehouse pharmacy. It is followed by WMS software selection process in which Odoo software was selected. Then, Odoo was configured and modified to comply with the SRS. The research ended with system testing of Odoo. In conclusion, this research proves that implementation of Odoo WMS software with ASRS function integration has a big potential to improve the efficiency, productivity, reliability and accuracy of the pharmacy warehouse performance.

Keywords: Warehouse Management System (WMS), Automated Storage and Retrieval System (ASRS), System Development Life Cycle (SDLC), Orchard Software Implementation, System Development Life Cycle Prototype Model, Qualification and Selection of Open Source Software (QSOS), Software Requirement Specification

DEDICATION

I dedicate this works for my family and my future

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