

**INVENTORY MANAGEMENT SOFTWARE IMPLEMENTATION
AT A VALVE AND FLOW CONTROL DISTRIBUTOR**

By

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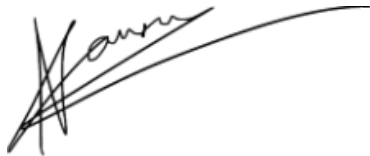


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STATEMENT BY THE AUTHOR

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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ABSTRACT

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PT Keystone Indonesia faced challenges with its manual, Excel-based inventory management system, resulting in inaccurate stock tracking and lack of real-time updates. To address these issues, this thesis explores the implementation of a web-based inventory management system and barcoding in the company's warehouse. The thesis utilized the Waterfall methodology for the system design and development. For the system, Odoo was selected based on a comparative analysis of functions and specific company needs. The designed system is evaluated with black box testing, User Acceptance Testing (UAT), User Experience Questionnaire (UEQ), and a time study. The implementation shown positive results where all test cases passed in black box testing, the UAT received nearly 97% positive responses, and the UEQ scored an average of 5.05 for a six-scale Likert. The time study revealed that Odoo reduced processing times in the warehouse by up to 55% for smaller quantities. However, larger volume showed no significant time improvement and could exponentially be more time-consuming. However, the system reduces the possibility of wrong shipments due to human-error. Key improvements include enhanced accuracy, real-time visibility, streamlined operations, and reduction in human-dependency.

Keywords: Inventory Management, Odoo, Barcode, Waterfall Methodology

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DEDICATION

To my beloved family, partner, and everyone who have supported me on this journey.
To my own resilience and determination. And to God for guiding each step that I take.
I dedicate this work to you all.

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