

**ENHANCING LOGISTICS PERFORMANCE THROUGH DATA
GOVERNANCE AND PROCESS OPTIMIZATION FOR COST REDUCTION
AND DELIVERY TIME IMPROVEMENT**

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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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This research enhances logistics performance at PT. XYZ Indonesia by addressing high costs and delivery inefficiencies through data-driven strategies. It examines how structured data governance, process optimization, and visualization can jointly support cost reduction and delivery accuracy. A mixed-method approach was employed, integrating CRISP-DM for data analytics and the DAMA-DMBOK framework for data governance. The study established a governance structure, conducted simulation-based optimization of logistics processes, and implemented a BI dashboard for real-time monitoring. Focus Group Discussions (FGDs) were conducted to validate outcomes and gather stakeholder perspectives. Findings reveal that governed data significantly improved logistics visibility and analytical reliability. Simulations demonstrated cost savings of 74%–76% across two shipment scenarios, while delivery delays dropped from 24% in May 2025 to 6% in July 2025, reflecting an 18% improvement in delivery accuracy within two months. The dashboard further enhanced responsiveness by enabling proactive issue detection and timely decision-making. The study concludes that integrating data governance with process optimization and visualization provides a practical framework for organizations seeking to reduce costs, improve delivery performance, and strengthen competitiveness.

Keywords: Data Governance, Logistics Optimization, Business Intelligence, Delivery Time Improvement, Cost Reduction.

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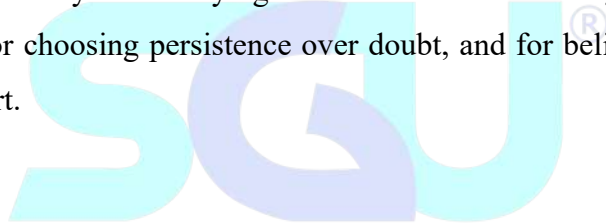
DEDICATION

This thesis is dedicated to my beloved family, whose unwavering support, patience, and encouragement have sustained me throughout this academic journey.

To my parents, thank you for your endless love and sacrifices. Your guidance and belief in me have been the pillars of my strength.

To my lecturers, advisors, and colleagues, I am deeply grateful for your insights, guidance, and continuous support that have shaped the quality and direction of this work.

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