

**DATA GOVERNANCE FOR LLM IN ENTERPRISE SYSTEM:  
ACUMATICA ERP CASE STUDY**

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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.



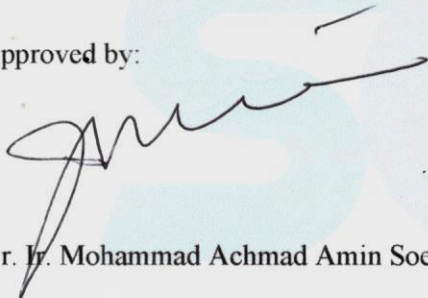
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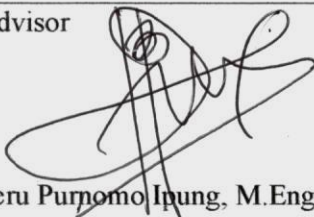


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## ABSTRACT

### DATA GOVERNANCE FOR LLM IN ENTERPRISE SYSTEM: ACUMATICA ERP CASE STUDY

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Data governance is critical for integrating Large Language Models (LLM) into enterprise system, yet existing frameworks lack AI-specific requirements. This study employs qualitative methodology with expert Focus Group Discussions (n=5) following TOGAF ADM phases to develop a comprehensive governance framework for LLM integration in Acumatica ERP. The research integrates TOGAF, DAMA-DMBOK, and COBIT to create unified governance mechanisms. Through pilot scenarios using Llama 3.2:3B model, the framework achieved expert validation, supporting all three hypotheses: structured data quality management positively influences LLM accuracy (H1), comprehensive governance controls enhance compliance confidence (H2), and chain-of-thought documentation increases transparency (H3). The framework addresses challenges of data silos, inconsistent formats, and inadequate quality controls while delivering practical contributions including configuration guidelines, risk mitigation strategies, performance optimization protocols, and compliance templates for Indonesian regulations. The findings enable organizations to deploy LLMs confidently while maintaining competitive advantage through governed AI capabilities, providing a validated implementation roadmap that bridges cutting-edge AI concepts with established ERP governance principles.

*Keywords: Enterprise System, AI, LLM, ERP, Data Governance, Data Quality, Acumatica, TOGAF, DAMA-DMBOK, COBIT.*



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## **DEDICATION**

I dedicate this work for my lovely wife and son.



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I would like to express my gratitude to my advisors for their direction and guidance in supporting my thesis, other lecturers for their input and support, and the friends and family who have been cheering me on in this journey.



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