



DESIGN OF ACCOUNTING MODULE TO SUPPORT DIGITAL TRANSFORMATION IN AN SME PROVIDING ECO SOLUTIONS FOR THE FOOD VALUE CHAIN

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**DEPARTMENT OF AGROINDUSTRIAL TECHNOLOGY
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ARIZAL MUHAMMAD FADILAH. Design of Accounting Module to Support Digital Transformation in an SME Providing Eco Solutions for the Food Value Chain. Supervised by TAUFIK DJATNA and INDAH YULIASIH.

SME business unit providing eco solutions for the food value chain faces operational challenges due to the absence of an integrated ERP system. Accounting, as a critical function, relies on manual, spreadsheet-based processes and a cash-based approach, leading to inaccurate and non-real-time financial data that hinders strategic decision-making. This project aims to design and develop an accounting module using the agile Scrum framework to transition the system toward an integrated, accrual-based model. The main output consists of an integrated accounting module on Odoo version 17, functionally capable of managing the entire accounting cycle, supported by a microservice-based application to accelerate validation processes. User Acceptance Testing (UAT) confirmed high acceptance, demonstrating the solution's effectiveness in transforming accounting into a strategic asset. To ensure sustainable implementation, a Standard Operating Procedure (SOP) was also developed.

Keywords: accounting module, digital transformation, ERP, Odoo, scrum

ABSTRAK

ARIZAL MUHAMMAD FADILAH. Perancangan Modul Akuntansi untuk Mendukung Transformasi Digital pada UKM Penyedia Solusi Ramah Lingkungan untuk Rantai Nilai Pangan. Dibimbing oleh TAUFIK DJATNA dan INDAH YULIASIH.

Unit usaha dari UKM penyedia solusi ramah lingkungan untuk rantai nilai pangan menghadapi tantangan operasional akibat belum diterapkannya sistem ERP terintegrasi. Fungsi akuntansi sebagai aspek krusial masih dijalankan secara manual menggunakan Spreadsheet dan pendekatan kas, sehingga menghasilkan data keuangan yang tidak akurat, tidak *real-time*, dan menghambat pengambilan keputusan strategis. Proyek ini bertujuan merancang dan mengembangkan modul akuntansi menggunakan kerangka kerja *agile Scrum* untuk mentransformasi sistem menuju model terintegrasi berbasis akrual. Hasil utama berupa modul akuntansi terintegrasi pada Odoo versi 17 yang mampu mengelola seluruh siklus akuntansi, dilengkapi dengan aplikasi berbasis *microservice* untuk mempercepat proses validasi. Pengujian *User Acceptance Testing* (UAT) menunjukkan tingkat penerimaan yang tinggi, membuktikan bahwa solusi ini berhasil mentransformasi fungsi akuntansi menjadi aset strategis. Untuk mendukung implementasi berkelanjutan, dokumen *Standard Operating Procedure* (SOP) telah disusun.

Kata kunci: ERP, modul akuntansi, Odoo, scrum, transformasi digital



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DESIGN OF ACCOUNTING MODULE TO SUPPORT DIGITAL TRANSFORMATION IN AN SME PROVIDING ECO SOLUTIONS FOR THE FOOD VALUE CHAIN

ARIZAL MUHAMMAD FADILAH

Undergraduate Final Report
one of requirements for obtaining a degree of
Bachelor of Engineering with Honours
at
Study Program of Agroindustrial Engineering

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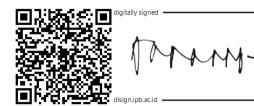


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PREFACE

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May this report be beneficial and contribute to the advancement of knowledge and practice in the field of agroindustrial engineering.

Bogor, July 2025

Arizal Muhammad Fadilah



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