1. *Engineering Management*
2. *System Design & Engineering*

BUSINESS PROCESS IMPROVEMENT TO ENHANCE ORDER FULFILLMENT PROCESS AT PT ALWANAS LESTARI INTERNASIONAL

FINAL PROJECT

Christophorus Lintang Aurelio Setyawan
211411380

INTERNATIONAL INDUSTRIAL ENGINEERING PROGRAM
DEPARTMENT OF INDUSTRIAL ENGINEERING
FACULTY OF INDUSTRIAL TECHNOLOGY
UNIVERSITAS ATMA JAYA YOGYAKARTA
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***IE Body of Knowledge*:**

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Final Project Team:

No.	Name and NPM	Major	University	Role Description in Design
1	Chirstophorus Lintang Aurelio Setyawan 211411380	International Undergraduate Program in Industrial Engineering	UAJY	• Final Project Author • Project Designer

HALAMAN PENGESAHAN

Tugas Akhir Berjudul

BUSINESS PROCESS IMPROVEMENT TO REDUCE ORDER FULFILLMENT PROCESS TIME AT PT ALWANAS LESTARI INTERNASIONAL

yang disusun oleh

Christophorus Lintang Aurelio Setyawan

211411380

dinyatakan telah memenuhi syarat pada tanggal 24 Juli 2026

			Keterangan
Dosen Pembimbing 1	:	Ir. Lenny Halim, S.T., M.Eng.	Telah Menyetujui
Tim Penguji			
Penguji 1	:	Ir. Lenny Halim, S.T., M.Eng.	Telah Menyetujui
Penguji 2	:	Dr. Ir. Deny Ratna Yuniartha, S.T., M.T.	Telah Menyetujui
Penguji 3	:	Dr. Ir. Yosephine Suharyanti, S.T., M.T.	Telah Menyetujui

Yogyakarta, 24 Juli 2026

Universitas Atma Jaya Yogyakarta

Teknologi Industri

Dekan

ttd.

Prof. Dr. Ir. Parama Kartika Dewa SP., S.T., M.T., IPU, ASEAN Eng.

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PT. ALWANAS LESTARI INTERNASIONAL

SURAT KETERANGAN TUGAS AKHIR

Nomor: 001/TA/ALI/IX/2025

Yang bertandatangan dibawah ini:

Nama	: AF. Herlina Dewi Maharani
Jabatan	: Direktur Utama

Dengan ini menerangkan bahwa:

Nama	: Christophorus Lintang Aurelio Setyawan
No. Mahasiswa	: 211411380
Asal Universitas	: Universitas Atma Jaya Yogyakarta

Bahwa yang bersangkutan melaksanakan penelitian Tugas Akhir pada Program Studi Teknik Industri Universitas Atma Jaya Yogyakarta di **PT Alwanas Lestari Internasional**. Penelitian terhitung dimulai sejak 6 September 2024 s/d Selesai dengan topik Proses Bisnis dalam Pemenuhan Pesanan Pelanggan. Yang bersangkutan diperbolehkan mengambil data dan menggunakan informasi perusahaan untuk keperluan akademik dalam penyusunan Tugas Akhir.

Demikian surat pernyataan ini kami buat, agar selanjutnya dapat digunakan sebagaimana mestinya.

Klaten, 3 September 2025
PT. Alwanas Lestari Internasional

AF. Herlina Dewi Maharani
Direktur Utama

- **Office :**
  Tengklik Rt.13 Rw. 01 Jelobo, Wonosari, Klaten
  Phone : 0821 1960 9498 / 085 725 343 738
- **Factory :**
  Pacing Alas Rt. 3 Rw. 3 Carikan, Juwiring, Klaten
  Phone : 0272 5533272

Email:alwanaslestariinternational21@gmail.com, globalalam16@gmail.com

DECLARATION OF ORIGINALITY

I, the undersigned below:

Name : Christophorus Lintang Aurelio Setyawan

Student Number : 211411380

I hereby declare that my final project entitled **"Business Process Improvement to Enhance Order Fulfillment Process at Pt Alwanas Lestari Internasional"** is my original work in 2026 and does not contain plagiarism from any other work.

If at any point in the future this statement is found to be untrue, I am willing to be held accountable and processed in accordance with the applicable regulations, including the revocation of the bachelor's degree granted by Universitas Atma Jaya Yogyakarta.

This statement is made truthfully and in accordance with the facts.

Yogyakarta, June 25th, 2026

Author,



Christophorus Lintang Aurelio Setyawan

PREFACE

First, the author offers utmost praise and gratitude to God Almighty, whose blessings and grace have enabled the satisfactory completion of this undergraduate thesis, entitled "Business Process Improvement to Enhance the Order Fulfilment Process at PT Alwanas Lestari Internasional." This report is submitted in partial fulfilment of the requirements for the degree of Bachelor of Science in Industrial Engineering at the Department of Industrial Engineering, Faculty of Industrial Technology, Universitas Atma Jaya Yogyakarta.

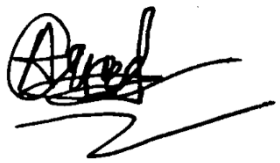
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Yogyakarta, June 25th, 2026

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Christophorus Lintang Aurelio Setyawan

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ABSTRACT

PT Alwanas Lestari Internasional is a company that operates in the field of export quality briquette production located in Klaten, Central Java. This company uses a Make to Order production strategy so that it can produce briquettes in various shapes and sizes according to customer orders. PT Alwanas Lestari Internasional is facing challenges with long customer order fulfilment times, which can take 35-52 days, not including export shipments. This problem is caused by the absence of SOPs that regulate the company's business processes, especially in receiving customer orders.

The objective of this final project is to reduce the order fulfilment time to or under 13 days. To solve this problem, an approach was used with Business Process Improvement using SIPOC Diagram, Business Process Modeling and Notation (BPMN), Value Added Analysis (VAA), and streamlining. The current business process will be described using SIPOC Diagrams, evaluated using VAA, and then re-evaluated using Streamlining. The results of the improvements made were to create BPMN To-Be, Standard Operating Procedures (SOP), Work Instruction (WI), Purchase Order Form, and Sales Order Form.

The implementation process involved socialization, implementation, and data collection. However, the implementation process did not go well, the company still used the old business process and did not implement the proposed business process. Because of this, data collection could not be performed. This process is then converted into a simulation process using Bizagi Modeler. The simulation results show that the average time for the As-Is business process is 19242 minutes and the To-Be business process is 11084 minutes. There was a reduction of 42% or 5.6 days. Therefore, it can be concluded that the proposed business process has achieved its time reduction target, which is equal to or less than 13 days.

Keywords: Business Process Improvement, Order Fulfillment, BPMN, SIPOC, Value Added Analysis, Streamlining, Standard Operating Procedure, Bizagi Modeler.