



**ANALISIS KELAYAKAN INVESTASI ATAS AUTOMATION
TECHNOLOGY DI PT XYZ**

UNDERGRADUATE THESIS

Submitted as one of the requirement to obtain
SARJANA AKUNTANSI

By:

MUHAMMAD YUSUF INTIFADA

008202205038

FACULTY OF BUSINESS
ACCOUNTING STUDY PROGRAM
CIKARANG

SEPTEMBER, 2025

PLAGIARISM CHECK RESULT

“ANALYSIS OF THE INVESTMENT FEASIBILITY OF AUTOMATION TECHNOLOGY AT PT XYZ”

Turnitin Muhammad Yusuf Intifada

ORIGINALITY REPORT

5 %	5 %	2 %	2 %
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

PRIMARY SOURCES

1	repository.its.ac.id Internet Source	1 %
2	www.coursehero.com Internet Source	<1 %
3	Submitted to Sriwijaya University Student Paper	<1 %
4	docplayer.info Internet Source	<1 %
5	www.scribd.com Internet Source	<1 %
6	repository.ipwija.ac.id Internet Source	<1 %
7	123dok.com Internet Source	<1 %
8	core.ac.uk Internet Source	<1 %
9	www.idxchannel.com Internet Source	<1 %

PLAGIARISM CHECK RESULT

“ANALYSIS OF THE INVESTMENT FEASIBILITY OF AUTOMATION TECHNOLOGY AT PT XYZ”

 **GPTZero** Version: 2025-05-14-multilingual

Final_Draft_Thesis_Cek_ZeroGPT.docx - 8/12/2025

AI Report

We predict this text is:

Human Generated

AI Probability 3% This number is the probability that the document is AI generated, not a percentage of AI text in the document.	Plagiarism  The plagiarism scan was not run for this document. Go to gptzero.io to check for plagiarism.
---	---

DAFTAR ISI

HALAMAN JUDUL -----	0
PANEL OF EXAMINERS' APPROVAL -----	i
STATEMENT OF ORIGINALITY -----	ii
SCIENTIFIC PUBLICATION APPROVAL FOR ACADEMIC INTEREST ----	iii
ADVISOR'S APPROVAL FOR PUBLICATION -----	iv
PLAGIARISM CHECK RESULT -----	v
KATA PENGANTAR -----	vii
DAFTAR ISI-----	ix
DAFTAR GAMBAR-----	xii
DAFTAR TABEL -----	xiii
ABSTRACTS-----	xiv
INTISARI -----	xv
BAB I PENDAHULUAN -----	1
1.1.Latar Belakang -----	1
1.2.Perumusan Masalah-----	2
1.3 Tujuan Penelitian-----	3
1.4. Batasan dan Ruang Lingkup Penelitian -----	3
1.5. Manfaat Penelitian -----	3
BAB II TINJAUAN PUSTAKA -----	4
2.1 Teori -----	4
2.1.1 Asumsi-----	4
2.1.1.1 Internal Financing-----	5
2.1.1.2 Ekternal Financing-----	5
2.1.2 Weighted Average Cost of Capital -----	6
2.1.3 Net Present Value-----	7
2.1.4 Internal Rate of Return -----	8
2.1.5 Payback Periode -----	8
2.1.6 Analisa Sensitivitas-----	9
2.2 Penelitian Sebelumnya -----	10
2.4 Kerangka Penelitian -----	11
BAB III METODOLOGI PENELITIAN-----	12

3.1 Pengumpulan dan Pengolahan data-----	12
3.1.1 Data Primer -----	12
3.1.2 Data Sekunder -----	12
3.2 Variabel dan Pengukuran -----	13
3.3 Model Penelitian -----	13
BAB IV HASIL DAN PEMBAHASAN -----	15
4.1 Initial Investment -----	15
4.2 Studi Kelayakan -----	15
4.2.1 Asumsi -----	16
4.2.1.1 Asumsi Skenario A -----	16
4.2.1.2 Hybrid Assumption -----	21
4.2.2 Financial Forecasting for Capex -----	28
4.2.3 Perhitungan Capital Budgeting -----	30
4.2.3.1 Perbandingan Asumsi Hasil Capital Budgeting -----	35
4.3 Beban Penyusutan-----	38
4.4 Analisa Sensitivitas -----	38
4.5 Analisa Perbandingan Initial dan Realisasi Capital Expenditure -----	54
4.5.1 Analisa Perbandingan Studi Kelayakan dan Realisasi -----	54
BAB V KESIMPULAN DAN SARAN -----	59
5.1 Kesimpulan-----	59
5.2 Keterbatasan Penelitian -----	60
5.3 Saran Penelitian -----	60
DAFTAR PUSTAKA-----	61
LAMPIRAN-----	63
Lampiran 1 Forecast Net Benefit Skenario A -----	63
Lampiran 2 Forecast Net Benefit Skenario WACC Equity-----	67
Lampiran 3 Forecast Net Benefit Skenario WACC Loan-----	71
Lampiran 4 Perhitungan Capital Budgeting Skenario A -----	75
Lampiran 5 Perhitungan Capital Budgeting Hybrid Assumption Loan PT XYZ -----	77
Lampiran 6 Perhitungan Capital Budgeting Hybrid Assumption Cash PT XYZ -----	79
Lampiran 7 Perhitungan Sensitivity Skenario A-----	81
Lampiran 8 Perhitungan Sensitivity Hybrid Assumption Loan PT XYZ---	83

Lampiran 9 Perhitungan Sensitivity Hybrid Assumption Cash PT XYZ ---	85
Lampiran10 Realisasi Studi Kelayakan PT XYZ Tahun 2022-----	85
Lampiran11 Realisasi Studi Kelayakan PT XYZ Tahun 2023-----	89

DAFTAR GAMBAR

Gambar 1.1. Kerangka Penelitian -----	11
Gambar 4.1 Flow Proses Capital Expenditure-----	16

DAFTAR TABEL

Tabel 4.1 Sample Penelitian Pembelian Mesin Tahun 2022 – 2024 -----	15
Tabel 4.2 Asumsi Project Automation Tahun 2022 -----	17
Tabel 4.3 Asumsi Project Automation Tahun 2023 -----	18
Tabel 4.4 Asumsi Project Automation Tahun 2024-----	20
Tabel 4.5 Asumsi Project Automation Tahun 2022 “Loan” -----	21
Tabel 4.6 Asumsi WACC Equity Project Automation Tahun 2022 -----	23
Tabel 4.7 Asumsi Project Automation Tahun 2023 “Loan” -----	24
Tabel 4.8 Asumsi WACC Equity Project Automation Tahun 2023-----	25
Tabel 4.9 Asumsi Project Automation Tahun 2024 “Loan” -----	26
Tabel 4.10 Asumsi WACC Equity Project Automation Tahun 2024 -----	27
Tabel 4.11 Projection Net Benefit Capex PT XYZ Asumsi Skenario A----	28
Tabel 4.12 Projection Net Benefit Capex PT XYZ Asumsi WACC Equity	29
Tabel 4.13 Projection Net Benefit Capex PT XYZ Asumsi WACC Debt--	30
Tabel 4.14 Hasil Perhitungan Capital Budgeting PT XYZ tahun 2022 – 2024-----	30
Tabel 4.15 Hasil Perhitungan Hybrid Assumption Loan PT XYZ tahun 2022 – 2024 -----	32
Tabel 4.16 Hasil Perhitungan Asumsi Cash PT XYZ tahun 2022 – 2024--	34
Tabel 4.17 Perbandingan Asumsi Hasil Capital Budgeting -----	36
Tabel 4.18 Perhitungan Depresiasi PT XYZ atas Automation tahun 2022 – 2024 -----	38
Tabel 4.19 Hasil Perhitungan Sensitivitas Asumsi Skenario A -----	39
Tabel 4.20 Hasil Sensitivitas Hybrid Assumption Loan -----	43
Tabel 4.21 Hasil Sensitivitas Hybrid Assumption Cash -----	49
Tabel 4.22 Capital Budgeting dan Realisasi Automation 2022 -----	54
Tabel 4.23 Capital Budgeting dan Realisasi Automation 2023 -----	56

ABSTRACT

This research was initiated by PT XYZ's need to reduce labor costs as a response to increasing competitive pressure and rising production expenses. The central problem addressed concerns the feasibility of investing in automation technology during the 2022–2024 period, assessed through an evaluation of its financial benefits and potential risks. The purpose of the study is to provide a sound strategic basis for investment decision-making, using three calculation assumptions: Scenario A (the company's predetermined assumptions), a hybrid assumption with loan financing, and a hybrid assumption with cash financing. The research employs a case study approach on two to three projects per year, applying financial analysis tools including Net Present Value (NPV), Internal Rate of Return (IRR), Payback Period, and sensitivity analysis. The results show that all scenarios produce a positive NPV, an IRR below the Weighted Average Cost of Capital (WACC), and a Payback Period of less than five years, which are in line with investment feasibility theory and indicate that the projects are financially viable. While the study provides meaningful insights, there remains scope for further development, particularly by incorporating a wider range of data and external factors to strengthen the validity of the conclusions

Keywords : Investment Feasibility, NPV, IRR, PP, WACC, Automation

INTISARI

Penelitian ini dilatarbelakangi oleh kebutuhan PT XYZ untuk menekan biaya tenaga kerja akibat persaingan yang semakin ketat serta tingginya biaya produksi. Permasalahan utama yang dikaji adalah kelayakan investasi teknologi otomatisasi pada periode 2022–2024 melalui evaluasi manfaat finansial dan risiko yang mungkin timbul. Penelitian ini bertujuan memberikan dasar pertimbangan strategis bagi perusahaan dalam pengambilan keputusan investasi dengan menggunakan tiga asumsi perhitungan, yaitu skenario A (data asumsi perusahaan), *hybrid assumption* dengan loan, dan *hybrid assumption* dengan cash. Metode yang digunakan berupa studi kasus pada dua sampai tiga proyek setiap tahunnya dengan pendekatan analisis finansial melalui indikator *Net Present Value (NPV)*, *Internal Rate of Return (IRR)*, *Payback Periode*, serta uji sensitivitas. Hasil penelitian menunjukkan bahwa seluruh skenario menghasilkan NPV positif, IRR di bawah *Weighted Average Cost of Capital (WACC)*, dan *Payback Period* di bawah lima tahun, yang sesuai dengan teori kelayakan investasi serta mengindikasikan bahwa proyek dinilai Layak dijalankan. Meskipun demikian, penelitian ini masih memiliki ruang untuk pengembangan lebih lanjut, khususnya dengan memperluas variasi data dan mempertimbangkan faktor eksternal agar hasil yang diperoleh dapat semakin memperkuat validitas temuan

Kata Kunci : Investment Feasibility, NPV, IRR, PP, WACC, Automation