



**LEVERAGING AUTOMATION PROJECT TO MITIGATE SAFETY
RISKS AND BOOST PERFORMANCE IN THE MANUFACTURING
INDUSTRY (CASE STUDY OF PT ABC)**

THESIS

**Submitted as one of the requirements to obtain
Magister Management**

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ABSTRACT

PT ABC is a firm that makes high-quality toys using a safe approach. Company has five factories worldwide that compete each year to maintain performance in delivering good products to clients through efficient operations. The better the performance, the more likely the plant will be able to receive high-load goods and continue to operate, particularly in Indonesia. A substantial safety risk occurs in the packout region, where many procedures continue to rely significantly on physical labor. Recognizing the inherent dangers and the opportunity for increased efficiency and cost-effectiveness, this firm has adopted automation as a strategic solution. However, despite several automation initiatives launched by the engineering department, many are still incomplete, impeding the company's success. This ongoing backlog is caused by the constant intake of new projects, making it impossible to deploy adequate resources and complete old efforts within the necessary timeframe. The purpose of this study is to completely examine and analyze the present procedure for executing automation projects at PT ABC. The inquiry will include all critical stages, such as planning, execution, control, and closure, with an emphasis on understanding the opinions and experiences of all relevant departments participating in the research and development process. Using a qualitative research technique, the study will collect in-depth insights through direct interviews with 12 informants, including internal and external stakeholders from various backgrounds. These interviews will look into the human elements that influence project success, including individual experiences, habits, and opinions. Preliminary findings indicate that product complexity is a substantial hurdle for engineers during the automation project implementation phase. The study will finish with practical consequences for company, such as recommendations for strengthening automation project management practices. Furthermore, the study will provide academic institutions with useful insights and recommendations for further research in this area.

Keywords: Automation; Manufacturing Industry; Process; People; and Project Management

ABSTRAK

PT ABC merupakan perusahaan yang memproduksi mainan berkualitas tinggi dengan pendekatan yang aman. PT ABC memiliki lima pabrik di seluruh dunia yang bersaing setiap tahun untuk mempertahankan kinerja dalam memberikan produk yang baik kepada klien melalui operasi yang efisien. Semakin baik kinerjanya, semakin besar kemungkinan pabrik tersebut akan dapat menerima barang dengan muatan tinggi dan terus beroperasi, khususnya di Indonesia. Risiko keselamatan yang substansial terjadi di wilayah pengemasan, di mana banyak prosedur terus bergantung secara signifikan pada tenaga kerja fisik. Menyadari bahaya yang melekat dan peluang untuk peningkatan efisiensi dan efektivitas biaya, perusahaan telah mengadopsi otomatisasi sebagai solusi strategis. Namun, meskipun beberapa inisiatif otomatisasi diluncurkan oleh departemen teknik, banyak yang masih belum selesai, sehingga menghambat keberhasilan perusahaan. Penumpukan yang berkelanjutan ini disebabkan oleh masuknya proyek-proyek baru secara konstan, sehingga mustahil untuk menggunakan sumber daya yang memadai dan menyelesaikan upaya-upaya lama dalam jangka waktu yang diperlukan. Tujuan dari studi ini adalah untuk sepenuhnya memeriksa dan menganalisis prosedur saat ini untuk melaksanakan proyek-proyek otomatisasi di PT ABC. Penyelidikan akan mencakup semua tahap penting, seperti perencanaan, pelaksanaan, pengendalian, dan penutupan, dengan penekanan pada pemahaman pendapat dan pengalaman semua departemen terkait yang berpartisipasi dalam proses penelitian dan pengembangan. Dengan menggunakan teknik penelitian kualitatif, studi ini akan mengumpulkan wawasan mendalam melalui wawancara langsung dengan 12 informan, termasuk pemangku kepentingan internal dan eksternal dari berbagai latar belakang. Wawancara ini akan melihat unsur-unsur manusia yang memengaruhi keberhasilan proyek, termasuk pengalaman, kebiasaan, dan pendapat individu. Temuan awal menunjukkan bahwa kompleksitas produk merupakan rintangan besar bagi para insinyur selama fase implementasi proyek otomasi. Studi ini akan diakhiri dengan konsekuensi praktis bagi perusahaan, seperti rekomendasi untuk memperkuat praktik manajemen proyek otomasi. Lebih jauh, studi ini akan memberikan wawasan dan rekomendasi yang berguna bagi lembaga akademis untuk penelitian lebih lanjut di bidang ini.

Kata Kunci: *Otomasi, Proses, Orang, Manajemen Proyek, dan Industri Manufaktur*

TABLE OF CONTENTS

APPROVAL PAGE	2
STATEMENT OF ORIGINALITY	3
ADVISOR APPROVAL FOR PUBLICATION	5
SIMILARITY INDEX REPORT	6
GPT ZERO CHECK.....	7
ABSTRACT	8
ABSTRAK.....	9
ACKNOWLEDGMENTS.....	10
CHAPTER I	Error! Bookmark not defined.
INTRODUCTION	Error! Bookmark not defined.
1.1 The History of the Company	Error! Bookmark not defined.
1.2 Industry or Scope of the Business	Error! Bookmark not defined.
1.3 Business Case	Error! Bookmark not defined.
CHAPTER II.....	Error! Bookmark not defined.
BUSINESS CASE EXPLORATION	Error! Bookmark not defined.
2.1 Conceptual Framework	Error! Bookmark not defined.
2.1.1 Internal Analysis	Error! Bookmark not defined.
2.1.2 External Analysis.....	Error! Bookmark not defined.
2.2 Analysis of Business Situation	Error! Bookmark not defined.
2.2.1 Research Methodology	Error! Bookmark not defined.
2.2.1.1 Research Design.....	Error! Bookmark not defined.
2.2.1.2 Research Design.....	Error! Bookmark not defined.
2.2.1.3 Research Instrument.....	Error! Bookmark not defined.
2.2.1.4 Data Analysis Method	Error! Bookmark not defined.
2.2.1.5 Summary of Interview	Error! Bookmark not defined.
2.2.2 Business Analysis.....	Error! Bookmark not defined.
2.2.2.1 Product Variation (Design and Method)	Error! Bookmark not defined.
2.2.2.2 People.....	Error! Bookmark not defined.
2.2.2.3 Process	Error! Bookmark not defined.
2.2.2.4 Technology.....	Error! Bookmark not defined.
2.2.2.5 Ethics	Error! Bookmark not defined.

2.2.2.6 Project Management	Error! Bookmark not defined.
2.3 Conclusion of the Business Analysis	Error! Bookmark not defined.
CHAPTER III	Error! Bookmark not defined.
BUSINESS SOLUTION	Error! Bookmark not defined.
3.1 Theoretical Foundation	Error! Bookmark not defined.
3.1.1 Industrial Revolution	Error! Bookmark not defined.
3.1.1.1 Industry 4.0 as The Future Manufacturing Vision	Error! Bookmark not defined.
3.1.2 Automation	Error! Bookmark not defined.
3.1.3 Organizational Culture	Error! Bookmark not defined.
3.1.4 Leadership and Motivation	Error! Bookmark not defined.
3.1.5 Product Development	Error! Bookmark not defined.
3.1.6 Workforce Development Program	Error! Bookmark not defined.
3.1.7 CMMS	Error! Bookmark not defined.
3.1.8 Lean Manufacturing Principles	Error! Bookmark not defined.
3.1.9 Project Management (Six Sigma)	Error! Bookmark not defined.
3.2 Business Solution Alternatives	Error! Bookmark not defined.
3.2.1 Aligning Business Mindset	Error! Bookmark not defined.
3.2.2 Product Catalyst Program	Error! Bookmark not defined.
3.2.3 Resource Development Program	Error! Bookmark not defined.
3.2.4 Process Catalyst Program	Error! Bookmark not defined.
3.2.5 Technology (Automation)	Error! Bookmark not defined.
3.2.6 Project Management	Error! Bookmark not defined.
3.3 Financial Indicators	Error! Bookmark not defined.
3.4 Analysis of the Alternatives	Error! Bookmark not defined.
CHAPTER IV	Error! Bookmark not defined.
IMPLEMENTATION PLAN AND RESOURCE REQUIREMENTS	Error! Bookmark not defined.
4.1 Implementation Plan	Error! Bookmark not defined.
4.2 Resource Requirements	Error! Bookmark not defined.
CHAPTER V	Error! Bookmark not defined.
CONCLUSION, IMPLICATION, AND RECOMMENDATION	Error! Bookmark not defined.
5.1 Conclusion	Error! Bookmark not defined.
5.2 Implication	Error! Bookmark not defined.

5.3	Recommendation	Error! Bookmark not defined.
REFERENCE		Error! Bookmark not defined.
ATTACHMENT.....		Error! Bookmark not defined.

TABLE OF FIGURES

Figure 1.1 Project Mapping Packout Area 2023-2024	Error! Bookmark not defined.
Figure 1.2 Comparison cost between labor costs and robot prices	Error! Bookmark not defined.
Figure 2.1 Conceptual Framework.....	Error! Bookmark not defined.
Figure 2.2 Frequency of Minor Incidents by Year	Error! Bookmark not defined.
Figure 2.3 Fishbone Diagram	Error! Bookmark not defined.
Figure 3.1 The Four Industrial Revolutions.....	Error! Bookmark not defined.
Figure 3.2 Design Thinking.....	Error! Bookmark not defined.
Figure 3.3 Best CMMS Software 2024	Error! Bookmark not defined.
Figure 3.4 The Five Principles of Lean Management	Error! Bookmark not defined.
Figure 3.5 DMAIC Process	Error! Bookmark not defined.
Figure 3.6 Business Culture Workflow	Error! Bookmark not defined.
Figure 3. 7 Product Development Workflow – Current Condition	Error! Bookmark not defined.
Figure 3. 8 Product Development Workflow – Proposed Improvement	Error! Bookmark not defined.
Figure 3. 9 Product Highlights.....	Error! Bookmark not defined.
Figure 3. 10 Resource Development Program.....	Error! Bookmark not defined.

LIST OF TABLES

Table 2.1 List of Informants for a Preliminary Interview **Error! Bookmark not defined.**

Table 2.2 List of research questions and interview questions..... **Error! Bookmark not defined.**

Table 2.3 The Interpretation of the Interview **Error! Bookmark not defined.**

No table of figures entries found.Table 4.1 Implementation Plan..... **Error! Bookmark not defined.**

Table 4.2 Resource Requirement **Error! Bookmark not defined.**