

**BUSINESS PLAN: BIODEGRADABLE PLASTIC PELLETS FROM
SEAWEED FOR MEDICAL DEVICES**

THESIS



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**PROGRAM STUDY
MAGISTER MANAJEMEN
UNIVERSITAS BAKRIE
JAKARTA
2022**

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SEAWEED FOR MEDICAL DEVICES**

THESIS

**Submitted as one of the requirements to obtain
a Master of Management Degree**



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STATEMENT OF ORIGINALITY

This thesis is my own work, and all sources both quoted and referenced I have stated correctly.

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PREFACE

First of all, thanks to The God because of the help of God, I finished writing the paper entitled “Business Plan: Biodegradable Plastic Pellets from Seaweed for Medical Devices” right in the calculated time.

The purpose in writing this paper is to fulfil the thesis for finished Master of Management. Thanks to Dr. Jerry Haikal, S.T, M.M, as an advisor, Ir. Gunardi Endro, MBA, M.Hum, M.Soc.Sci, Ph.D and Arief Bimantoko Suharko, Ph.D as lecturer and examiner in this thesis.

I would like to express my gratitude to my beloved family, my team in delivery room, polyclinic and operation room in Mitra Keluarga Hospital, and my team in Abramed, for eternal pray, love, patience and all supports.

Jakarta, August 10, 2022



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PUBLICATION APPROVAL

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BUSINESS PLAN: BIODEGRADABLE PLASTIC PELLETS FROM SEAWEED FOR MEDICAL DEVICES

Jolanda Refanya Labora

ABSTRACT

Plastic waste pollution has become a significant concern of the world today. Indonesia is one of the most critical contributors to single-use plastic pollution into the ocean. Reducing plastic use in the medical field is not easy, like stopping using single-use straws or plastic bags. The hospital itself contributes several plastic problems from the sterilization and single-use issues in this pandemic.

PT Anugrah Bumi Indonesia (SEBARIN) sees this as a business opportunity by providing alternative raw material solutions for the manufacturing related to raw material supply and environmental issues. We believe that using seaweed can solve these problems.

Seaweed in Indonesia has abundant sources and easy to supply the raw materials. The technology for making plastic pellets from seaweed by modifying current equipment used for synthetic plastic. We tried to move from single-use plastic bags with new raw seaweed materials. We chose to focus on cost as a general strategy to maintain the existence of SEBARIN plastic pellets in the competitive market with biodegradable plastic pellets products that are already on the market. This business is not only intended for profit but also positively influences for the community, especially for seaweed farmers in Indonesia.

At the start of this business, SEBARIN will focus on being marketed to medical manufacturers with a target market of 30% of medical plastic bags and medical aprons in some hospitals in Indonesia. The company location will be in Kalianda, South Lampung. This location was chosen to have the closest distance to the source of seaweed by traditional farmers with low labor costs. The total investment required is IDR 14,5 billion with capital from owner. The indication of business feasibility provides an IRR of 25.39% with a discounted NPV (10 years) of Rp. 26,423,369,757. We can get a break-even point in the first two years, with the profitability index reaching 2.75x. The sensitivity analysis in the specific scenario still gives a positive NPV (10 years) value with an IRR value greater than the WACC, indicating that this business can be executed.

Keywords: biodegradable, plastic, pellets, seaweed, environment, waste management

TABLE OF CONTENTS

Title	i
Originality Statement	iii
Approval Page	iv
Preface	v
Publication Approval	vi
Abstract	vii
Table of Contents	ix
List of Figures	xii
List of Tables	xiii
List of Equations	xiv
CHAPTER I	1
I. Introduction	1
I.1. Background of the Study	1
I.2. Business Problem	3
I.3. Objective of the Study	3
I.4. Advantages	3
I.4.1. For Government	3
I.4.2. For Academics	4
I.4.3. For Manufacture	4
CHAPTER II	5
2. Literature Review	5
2.1. Objective Review	5
2.1.1. Plastic Problem	5
2.1.2. Plastic Problem in the Healthcare Sector	5
2.1.3. Waste Management	8
2.1.4. Using Seaweed to Replace Certain Plastics	11
2.2. Industrial Description	11
2.2.1. Value for Company	11
2.2.2. Finish Goods	11
2.3. Buyers, Focusing on Medical Suppliers	11
2.3.1. Value for Customers	12
CHAPTER III	13

3. Business Description And Product	13
3.1. Company Profile	13
Vision, Mision, and Company Value	14
3.2. Product Description	14
3.3. Business Plan Scope	14
CHAPTER IV	16
4. Business Plan Method	16
4.1. Situation Analysis	16
4.1.1. Market Situation Analysis	17
4.1.2. SWOT Analysis	17
4.1.3. Competitor Analysis	18
4.1.4. Channels and Resources Analysis	18
4.2. Objectives Analysis	19
4.3. Strategy	20
4.3.1. Segmentation	20
4.3.2. Positioning	20
4.4. Tactics	21
4.5. Action	21
4.6. Control	22
CHAPTER V	23
5. Data Analysis	23
5.1. Situation Analysis	23
5.1.1. Opportunities	23
5.1.2. Strengths	24
5.1.3. Weaknesses	25
5.1.4. Threats	25
5.2. Objective analysis	25
5.3 Strategy Analysis	28
5.3.1. Value Proposition	28
Key Activities	28
Cost Structure	28
5.3.2. Industry Trend Analysis	30
5.3.3. Environmental Analysis	32
5.3.4. Competitor Analysis	33
5.3.5. Supply Chain Strategy	37
5.4. Tactic Analysis	39
5.4.1. CAPEX	39
5.4.2. Operational Cost	39
5.5. Human Resource Strategy	39

5.5.1. Company Value	40
5.5.2. Organization Structure	40
5.5.3. Strategy for Human Resource Procurement	41
5.6. Analysis Of Financial Projection	43
5.6.1. Investment Strategy	44
5.6.2. Funding Strategy	45
5.6.3. Analysis Of Funding Projection	45
Funding from loan	45
5.7. Control Analysis	46
CHAPTER VI	47
6. Business Plan	47
6.1. Product Ideas Offered	47
6.2. Marketing Strategy	49
6.3 Distribution Strategy	49
6.4. Communication Strategy	50
6.5. Operational Business Strategy	50
6.6. Technology process	51
6.7. Financial projection	52
6.8. Feasibility Study Analysis	56
CHAPTER VII	60
Conclusion	60
References	62

LIST OF FIGURES

Figure 1: Plastic Waste in Southern Asian	Error! Bookmark not defined.
Figure 2: Worldwide bioplastic market segment	2
Figure 3: Composition of plastic use in the medical field	7
Figure 4: The waste hierarchy	9
Figure 5: Bioplastic product from Seaweed.....	14
Figure 6: Bioplastic in everyday life.....	15
Figure 7: Method for Bioplastic extraction.....	15
Figure 8: SOSTAC analysis.....	16
Figure 9: SWOT Analysis in SOSTAC Model.....	17
Figure 10: SMART Objective for Smith 5S Goals.....	19
Figure 11: Digital Marketing 5S's.....	20
Figure 12: SOSTAC Analysis.....	23
Figure 13: Business Model Canvas for PT ABI	28
Figure 14: Indonesia Plastic Market Concentration.....	30
Figure 15: Plastic market revenue in Indonesia	31
Figure 16: Plastic Market Revenue in Indonesia	32
Figure 17: Top countries that produce biodegradable plastic	32
Figure 18: Porter's 5 Forces Analysis	33
Figure 19: Global Biodegradable Plastic Market.....	36
Figure 20: PT ABI organization structure	40
Figure 21: Operational employee structure.....	41
Figure 22: Employee compensation system	42
Figure 23: Model Kirkpatrick 4 levels and Philips ROI.....	46
Figure 24: Distribution strategy in PT ABI	49
Figure 25: Seaweed plastic pellets process	51

LIST OF TABLES

Table 1: Operational Matrix Strategy	27
Table 2: Sales in 5 years	27
Table 3: Road Map Operation PT Anugrah Bumi Indonesia in 2022-2032	38
Table 4: CAPEX for PT ABI.....	39
Table 5: Predictive operational cost in the first five years.....	39
Table 6: Procurement prediction in the first five years.....	41
Table 7: Employee salary.....	42
Table 8: Financial project for Human Resource	43
Table 9: Total Investment for PT ABI.....	44
Table 10: WACC for PT ABI.....	46
Table 11: Product Differentiation.....	47
Table 12: Production Cost	48
Table 13: BEP for PT ABI.....	56
Table 14: Projection Economic Analysis for PT ABI	56
Table 15: WACC in PT ABI.....	58
Table 16: Terminal Value in PT ABI	59

LIST OF EQUATIONS

Equation 1: Sales Projection in the first ten years	52
Equation 2: Profit and Loss Projection in PT Anugerah Bumi Indonesia	53
Equation 3: Financial projection in PT Anugerah Bumi Indonesia	53
Equation 4: Working Capital Projection for PT ABI.....	53
Equation 5: Fixed Asset Growth for PT ABI.....	54
Equation 6: Projection for Equity growth PT ABI	54
Equation 7: Payback period for PT ABI.....	55
Equation 8: Net Payback Period for PT ABI.....	55
Equation 9: Cash Flow Projection for PT ABI.....	58