

**FEASIBILITY STUDY OF ESTABLISHING PLASTIC BAG
MAKING PLANT**

by

Ir. Leslie Ogilvie
M.B.A., IEU Institute of Management, 1992



FINAL PAPER

Submitted in partial fulfillment of the requirement for the
degree of Master of Business Administration
in the IEU Institute of Management, Jakarta

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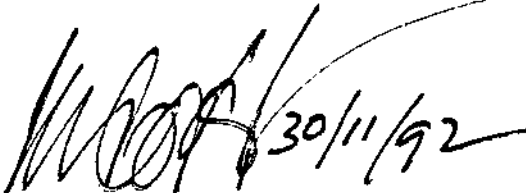
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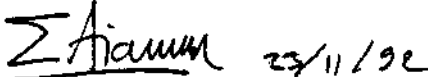
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TABLE OF CONTENT

TABLE OF CONTENT	i
ABSTRAC	iii
PREFACE	iv
SECTION I : INTRODUCTION	
I.1. Purpose of Study	1
I.2. Background	1
I.3. Statement of Problem	2
I.4. Methodology	3
I.5. Plan of The Study	4
SECTION II : REVIEW OF LITERATUR	
II.1. An Overview of Capital Budgeting	6
II.2. Cash Flows	10
II.3. Present Value Approaches to Evaluate Investment	11
II.4. Break Even Analysis	12
II.5. Financial Ration Analysis	13
SECTION III : DATA AND ANALYSIS	
III.1. The Industry Outlook	15
III.2. Marketing Aspect	19
III.3. Technical & Production Aspect	21
III.4. Management Aspect	27

III.5. Financial Aspect	.....	29
III.6. SWOT Analysis	.....	34
SECTION IV : SUMMARY AND CONCLUSION		
IV.1. Conclusion	.....	37
IV.2. Recommendation	.....	41
BIBILIOGRAPHY	.....	42
APPENDIX I	Financial Projection	
APPENDIX II	Sensitivity Analysis (sales decrease 2,5%)	
APPENDIX III	Sensitivity Analysis (cost increase 2,5%)	
APPENDIX IV	Sensitivity Analysis (sales decrease 5%)	
APPENDIX V	Sensitivity Analysis (cost increase 5%)	
APPENDIX VI	Sensitivity Analysis (sales decrease 7,5%)	
APPENDIX VII	Sensitivity Analysis (cost increase 7,5%)	
APPENDIX VIII	Economic Indicator	
APPENDIX IX	Organisation Structure	
APPENDIX X	Flow of Production	

ABSTRAC

As a developing country, the government of Indonesia strongly emphasize on the industrial sector. To establish a manufacture, analysis thru several aspect should be made.

The plastic bag manufacture, still have the opportunity to enter the market. A carrefully analysis thru the financial aspect have to be made since a huge amount will be invested in establishing the plant.

In establishing the plant, polution of plastic waste will be the constrain, to solve the problem, in preparing the plant, an investment of plastic waste recycle machine included.

Emphasized the project on the financial aspect, the technique of Internal Rate of Return, Net Present Value, Break-Event Point, and Pay-Back periode is being used to analys the feasibility of the project.

Viewed thru the market opportunity, the plastic bag industry have still room for the capacity that the manufacture could produce. With the capacity that the manufactured intended to produce, the project could be conclude feasible.

To antisipate the possibility of decrease on sales or increase in cost, sensitivity analysis is being made to measure the minimun percentage of decrease in sales or increase in cost, that the project will still be feasible.

PREFACE

This paper is prepared as the final paper of the requirement for the degree of Master of Business Administration.

Many thanks to all participant that helps the writer to realize this thesis, especially to DR. R.M.D. Soetisna MBA and Ir. Son Diamar Phd for being my conselor, Robby D. Basuki who is very much helpful in supporting the data needed, Denny M.R. in helping the technical knowledge of the plastic bag manufacture.

This paper is still far from perfection, any critics to developed the writing of this thesis is very much except.

SECTION I
INTRODUCTION

I.1. PURPOSE OF STUDY.

To establish a Plastic bag making plant, there is a high amount of capital engaged. In order to make an investment, it is important to analyse the condition such as stated below :

- The opportunity to enter the Plastic Bag market.
- Evaluate the project forecast the likely or expected return from the project. The calculation generally begin with an expenditure of cash at the beginning of the project service life and stream of cash flowing to the firm over the life of the project. The Calculation of forecast return will be done by two methods, which are internal rate of return and net present value.

Based on the situation the topic of wwriting the thesis is "FEASIBILITY STUDY OF ESTABLISHING PLASTIC BAG MAKING PLANT"

I.2. BACKGROUND.

The demand for plastic shopping bags produced by plants such as the one outlined in this proposal have reached an all time high despite the environmental effect such as plant has on the host nation. As the number of countries around the world industrializing themselves continued to rise, so should the demand for plastic shopping bags and the profit for those who produce them.

I.3. STATEMENT OF PROBLEM.

Shopping bags made from various types of paper have been used by people around the world for many years. However, the use of plastic to make bags of all types has become even more popular in many countries. In Indonesia, virtually 100 percent of all shopping bags used by retailers and manufactures alike are made of plastic. The most popular type of plastic bags used here are those made from high density polyethylene (HDPE), because of its high resistance to heat and preasure.

The fact that the use of plastic bags create serious polution problems has not been one concern for the people of most nation for they have been more concerned with the benefit of plastic bags. To begin with the raw material used to make plastic bags are easily obtainable and relatively inexpensive. Secondly, the procedurs used to produce bags utilize inexpensive machinery. Finally, the ease with which attractive advertising can be printed on plastic bags have made them a favorite among profit oriented businessmen around the world.

I.4. SYGNIFICANCES AND LIMITATION.

Discussion of the topics is emphasize on the financial aspect, other condition such as industry outlook and production aspect is just a support to complete the financial budgeting which refer to the capacity of the product to produce.

The assumption of the subject is that there will be a steady growth of the economic.

I.5. METHODOLOGY.

In making the feasibility study, the methodology that will be used is **Library Research**, in which all the data gathered from the library such as from Industrial Department, Central Biro Statistic, the Taiwan Embassy, and by go into several industry that produce the same product to compare their technology and the capacity.

I.1. SAMPLE FOR THE STUDY.

To be able to analyse the feasibility of the plastic bag making plant, several data is being clasified to analyse each aspect which is going to be describe in the forth section.

1. The data gathered from the Industrial Department is the data which are related to the production, market opportunity, and the capacity of all manufacture that produce the similar product.
2. To analys~~e~~ the demand of the plastic bag product, data gathered from the Central Biro Statistic in which the demand of such product could be presented in writing this thesis.
4. To analys~~e~~ the technology, production aspect which this data directly effect the investment of the project, data gathered from the Taiwan Embassy, in which they provide the standart requirment to establish plastic bag

manufacture.

3. Other data such as economic condition, gathered from other library.

All the data that have been collect^{ed}, is to support the investment that are going to be make^d, in this case the writing of this thesis is emphasize on the financial strategy.

I.2. METHOD OF TREATING DATA.

After gathereing all the data, further analysis are going to be describe and clasified in each aspect. A simple linier regression to forecast the the demand of the plastic bag product is used in this study.

Other data that related to the investment is clasified into the financial aspect of this thesis, in which assumption are going to be made to make a budget of the plastic bag manufacture.

The profit planning, net present value, and the internal rate of return technique is used to analys the feasibility of the project viewed from the financial aspect based on the investment made from the project.

I.5. SISTIMATIC OF DISCCUSION.

This paper will be divided into several chapter which are :

Chapter I : INTRODUCTION

This chapter describe about, statement of problem, significant of problem, assumption and limitation, and sistimatic of

discussion.

Chapter II : REVIEW OF LITERRATUR

This chapter describe about, the theoritical framework that related to the discussion of problem.

Chapter III : THE DATA AND ANALYSIS

This chapter describe about the presentation of data and analysis of data that have been gathered.

Chapter IV : CONCLUSION AND RECOMENDATION

In this chapter there will be conclusion and recomendation based on analysis that have been made.

CHAPTER II
REVIEW OF LITERATURE

II.1. AN OVERVIEW OF CAPITAL BUDGETING.

Capital Budgeting may be define as the decision making process by whihc the firms evaluate the purchase of major fixed asset, including building, machinery, and equipment. Its also covers decision to acquire other firm, either through the purchase of their common stock of group of asset that can be used to conduct an on going business. Capital Budgeting describes the firm's formal planning process for the acquisition and investment of capital and results in a capital budget that is the firm's formal plan for the expenditure of money to purchase fixed assets.

II.1.1. Significance of Capital Budgeting.

Preparation of the firm's capital budget is highly significant for a number of reason :

1. **Substantial Expenditure,** Capital expenditure may range from piece of equipment costing thousands of dollars to complete factories and other physical facilities costing millions of dollar. For example A \$25 million factory or ocean-going vessel has become commonplace and a \$ 300 million refinery is an occasional investment. The very size of these items in dollars underlies their importance to the firm.
2. **Long Time Periodes,** The effect of capital-spending decision will be left byy the firm over eextended periods of time. Once a multi-million dollar building is begun,

the firm cannot easily withdraw from the construction. When a firm forecast the need for additional manufacturing space, it may begin constructing a factory. If change in the market place eliminate need for extra capacity, the firm faces a serious problem.

3. Implied Sales Forecast, The spending of funds for fixed assets represents an implied forecast of future sales. If machinery or a building is not purchased, the firm may not be able to meet the demand in the future, if too much is purchased, the firm is stuck with unneeded capacity. An important part of the capital budgeting process is forecasting sales, possibly ten or fifteen years into the future.

4. Over the Undercapacity, If the budget is carefully drawn, it usually improves the timing and quality of asset acquisition. If done poorly, it costs the firm large sums of money because of overcapacity or undercapacity sometimes at the same time. The firm may have idle assets to produce a product that is not in demand while it has a shortage of the machinery and facilities to produce a much demanded, high profit product.

II.1.2. Kind of Proposal.

A firm may include several different kinds of proposal in its capital budgeting. One classification identifies five kind of proposal.

1. Replacement, As fixed asset are used, they wear out or become outdated by new technology. Money may be budgeted

to replace wornout or obsolete equipment.

2. **Expansion,** Successful firms tend to experience growth in the sales of primary product. If a firm is experiencing shortages or delays in high demand product due to inadequate production facilities, it will consider proposal to add capacity to existing product line.
3. **Diversification,** A business can reduce the risk of failure by operating in several market rather than in a single market, Diversification allows the firm to protect itself against the collapse of sales in a single product. Firms seeking the facilities to enter new market will consider proposal for the purchase of the new machinery and facilities to handle the new product.
4. **Research and Development,** Firm in Industries where technology is rapidly changing will expend large sum of money for researching and developing new product. If large sums of money for researching and developing new products. If large sum of money are needed for equipment, these proposal will normally be included in the capital budget.
5. **Miscellaneous,** A firm frequently has proposal that do not directly help achieve profit-oriented goals. The proposal to install pollution control equipment on a factory's smokestacks is an example. Safety items, such as automatic sprinkler system to protect against fire, may involve considerable expenditure. These type of proposal may include in the firm's capital budgeting process.

II.1.3. Capital Budgeting Policies.

Because of the importance of capital budgeting decisions, firms usually have detailed policies for administering the budget. We will identify several major issues facing firms and outline some guidelines for policies dealing with each issue.

1. **Estimating Needs,** The amount of funds needed for a project should be estimated by using a combination of past performance and historical data, future expectations, and the recommendations of all interest departments in the firm. By including all three sources of information, the firm reduces the possibility of omitting a major factor. It takes a special skill to bring together the estimates of data, check the different items for accuracy, and resolve the differences. This is an important part of the financial manager's ability to develop a realistic and accurate capital budget.
2. **Planning Horizon,** The capital budget is prepared at least 1 year in advance and may extend 5, 10, or even 15 years into the future. Five to 7 years is common. The most important factor affecting the planning horizon is the rate of change in technology in the industry. If a firm is in an industry with relative few advancements in technology, a capital investment will be useful for many years. The firm can plan ten, fifteen, or more years of service life from an asset. This is not the case for a firm facing rapid technological change. In this situation, the firm must plan for an early return on investment so that funds will be

available to replace obsolete equipment.

II.2. CASH FLOWS.

Cash flow is an essential concept in capital budgeting. The accounting approach calculating return is not appropriate in making the decision to invest funds in new investments. Accounting techniques should be limited to two areas :

1. **Calculating Tax Effects,** The firm pays its taxes on the basis of accounting data and reported profits. Depreciation and noncash expenses are a tax shield. These tax effect are included in capital budgeting because they affect the cash flow.
2. **Calculating Future Earning per Share,** This is an addition to capital budgeting process, it is not part of it. along with the return on cash flow basis, the firm may want to check the effect of an investment on future earnings per share. As a general rule, a high return on cash flow basis also yield a high future EPS.

Calculating budgets should carefully forecast the timing and amounts of cash flowing to and from the firm as result of capital expenditures. The rate of return is calculated on money being expended or tied up at one point in time and being available at another point in time.

II.2.1. **Differential Aftertax Cash Flow.**

In considering an expenditure of cash for an investment project, only differential aftertax cash flows are included in the analysis. The term differential reefers to a comparison of that would be received and spent in the absence

of the proposal. The term aftertax refers to the fact that all calculations are evaluated after considering the effect of corporate income taxes.

A cash flow stream is a sense of cash expenditure or receipts written so that their timing can be seen.

II.2.2. Depreciation as a Tax Shield.

A firm noncash expenses offer a tax shield on income and will reduce the amount of tax paid. When making capital budgeting decisions, an important noncash expense is the depreciation on equipment as an expense over some period during the service life of the equipment. This depreciation appears as an expense (but does not involve any cash) on the firm's income statement. Since expenses reduce reported profits, they also reduce taxable income.

Since depreciation acts as a tax shield and allows the firm to keep cash that would otherwise flow out to the government, depreciation increases the firm's cash flow.

II.2.3. Tax Effect from Depreciation.

In making capital budgeting decisions, the tax effect from depreciation are considered in the calculation of cash flow.

Straight Line Depreciation, Using this method, the cost of a fixed asset is spread equally over its expected service life. The annual depreciation formula are :

$$\text{Annual Depreciation} = \frac{\text{Original cost} - \text{salvage value}}{\text{Years of service life}}$$

II.3. PRESENT VALUE APPROACHES TO EVALUATING INVESTMENT.

II.3.1. Net Present Value.

As the flaws in the payback and ROA methods were recognized, people began to search for methods of evaluating project that would recognize that a dollar received immediately is preferable to a dollar received at some future date. This recognition led to the development of discounted cash flow (DCF) techniques to take account of the time value of money. One such discounted cash flow techniques is called the net present value method. If the net present value is positif, the project should be accepted, if negative, it should be rejected.

The equation for the net present value (NPV) is :

$$NPV = \left| \frac{CF_1}{(1+k)^1} + \frac{CF_2}{(1+k)^2} + \dots + \frac{CF_n}{(1+k)^n} \right| - I_0$$

II.3.2. Internal Rate of Return Method.

The internal rate of return (IRR) is defined as the interest rate that equates the present value of the expected future cash flow, or receipt, to the initial cost outlay. The equation for calculating the internal rate of return is :

$$\frac{CF_1}{(1+IRR)^1} + \frac{CF_2}{(1+IRR)^2} + \dots + \frac{CF_n}{(1+IRR)^3} - I_0 = 0$$

II.4. BREAK-EVEN ANALYSIS.

A fundamental profit-planning tool involves the

determination of the likely profits at different levels of production. To develop the necessary calculation, the financial managers build on basic tool of break-even analysis and expands it through profit-volume analysis.

Break-even analysis is used to determine the level of operations at which a firm neither makes a profit nor loses money. At this level, the firm operates at a zero profit level, or break-even point. Break-even analysis makes use of fixed cost, variable cost, and revenues.

II.5. FINANCIAL RATIO ANALISYS.

II.5.1. Liquidity Ratios.

Two comonly used liquidity ratios are presented here are :

- ~~Current Ratio, the current ratios~~ is computed by dividing current asset by current liabilities.
- Quick Ratio or Acid Test, The quick ration is calculated by deducting inventories from current asset and dividing the remainder by current liabilities.

II.5.2. Leverage Ratios.

Leverage ratios, is use to measure the funds supplied by owners as compared with the financing provided by the firm's creditor.

- Total Debt to Total Assets, the ratio of total assets, generally called the debt ratio, measure the percentage of total funds provided by creditor.
- Times Interest Earned, the times interest earned ratio (coverage ratio) is determined by dividing earnings before

interest and taxes (EBIT) by the interest charges. The ratio measure the extent to which earnings can decline without resultant financial embrarrassment to the firm because of inability to meet annual interest cost.

- Debt to Equity Ratio,

II.5.3. Activity Ratio.

- Total Assets Turnover, the ratio to measure the turn over of all firm asset, is calculated by dividing sales by total assets.

- Working Capital Turn Over, the ratio that measure the working capital turn over of a firm, is calculated by dividing sales by current asset minus current liabilities.

II.5.4. Profitability Ratio.

Profitability is the net result of a large number of policies and decisions. The ratio examined thus far reveal some interesting things about the way the firm is operating, but the profitability ratios give final answer about how effectively the firm is being managed.

- Profit Margin on Sales, the profit margin on sales, computed by dividing net income after taxes by sales, gives the profit per dollar of sales.

- Return on Net Worth. the ratio of net profit after taxes to net net worth measure the rate of return on the stockholder investment.

CHAPTER III
DATA AND ANALYSIS

III.1. THE INDUSTRY OUTLOOK.

III.1.1. Indonesian Economy.

The Indonesia's economic which in 1991 was still affected by the tight monetary policy and the long dry season was estimated to grow by 6,8%. The growth rate of physical investment in real terms was still high at 33,7% of the Gross Domestic Product, but domestic demand grew at a slower, but still satisfactory level of 8,9%, a rate lower than that of the previous year, The high level of production of the oil and gas sector resulted in a 8,9% growth in oil and gas gross domestic product and accounted for a 18,7% share of total gross domestic product.

The 1992 decline in oil production will result in total gross domestic product growth of but 6%. On the other hand, the non-oil and gas gross domestic product will improve to 7,7% compared to the 6,5% posted in the previous year. As plus factor for the overall rate of economic growth in 1992 can be mentioned :

- The liquidity of the banking system will gradually improve and the interest rate on time deposit and other savings accounts will be gradually lowered and the interest rates on bank loans with a certain time lag will also decline.
- Inflation will be lower than of the previous years.
- Shortages of such facilities as electricity, telephones, water, and transportation will persist.

- Unemployment rate, especially that for educated youth, will remain high.

III.1.2. Gross Domestic Product.

The Indonesian economic growth in 1991 is estimated to decline compared with the economic growth of 1990. The economic growth rate which is measure based on the growth of Gross Domestic Product at constant price of 1983 shows 7.4% in 1990 and 6.3% as the estimated for 1991. The major factors would account for this declining are as follow :

- The declining contribution of agriculture sector due to the long draught occuring in 1990.
- The declining oil and gas export due to the increasing world oli's supply with the entry of the Soviet oil into ~~the international market.~~
- The increasing interest rate due to the shortage of liquidity.

In the meantime, on the basis of the economic growth rate in 1991 (see table), the sector which are potential in 1992 are the processing industry, electricity/gas/water, construction, transportation and communication.

Viewed from their role towards the GDP, the sector of agriculture, mining & quarrying, processing industry, transportation and communication, still constitute the dominant sectors. Altogether these four sector contribute their role of 70.3%.

The reason of increasing role as well as growth of these sectors are :

- The increasing domestic and foreign capital investment in the above sectors (see table)
- The increasing export of the product of the above industrial sectors.

III.1.3. Monetary.

The volume of money supply (M-1) up to november 1991 was Rp. 25.83 trillion or an increase of 3,59% compared with M-1 in the same periode in 1990. The increase in volume of the currency by 12,35% contributed to this situation.

The volume of domestic liquidity up to November 1991 has reached Rp. 97.76 trillion, or an increased of 21.02% compared with M-2 of the same periode in 1990 (see table). This increase was resulted from the increasing demand deposit by 17,91% and the quasi money from private companies and government companies. The increase of foreign assets were result from the incoming foreign exchange both from foreign loans and in the frame work of Foreign Investment.

A rise in domestic liquidity (M-2) is projected by 20,10% from Rp. 118,26 trillion in 1991 to Rp. 141.91 with the assumption that tight money policy will continued. This can be seen from the fact that the SBI (Bank Indonesia Certificate) are still extended. In its development, if any bank requires liquidity and wants to resale its SBI, the government will selectively scrutinize both its utilization and the financial condition of the bank concerned.

III.1.4. Banking.

The fund of banking community (checking account, time

deposits, savings) up to November 1991 has reached Rp. 95.32 trillion or an increase of 19.70% compared with the same period in 1990 (see table). Viewed from the source of funds by type, the saving and time deposit have experienced a sufficiently significant increase. This resulted from the increase in the number of office, the high interest rate and the development of new banking product as a response to the tight competition in funding.

View from the funds by the bank, it can be noted that the role of state banks is still sufficiently dominant, although there was a declining trend from 48.78% in the 1990 into 44.65% in 1991. The National Private Banks and the Regional Development Banks experinced increasing in role.

The outstanding credit of the bank through November 1991 reached Rp. 108.47 trillion or an increase of 29.11% compared with the same period in 1990. The state banks still played an important role in channeling credits, this can be seen from its role which reached 54.02%, a decline from the 55.19% in 1990.

III.1.5. Inflation.

The inflation in Indonesia since March 1988 - April 1989 had been calculated based on the change of average weighted consumer's price index in the 27 provincial capital comprising 200-244 types of articles and services. The inflation of 1990 and 1991 respectively reached 9.53% and 9.52%.

The inflation in 1992 is presumed to be lower compared

with the inflation of the previous year, i.e. 8%. This projection is based on the assumption that the export credit facility and the Bank Indonesia liquidity credit will be gradually reduced, the SBI/Bank Indonesia Certificate periode will be extended, and the deregulation at the real sector will continued.

III.2. MARKETING ASPECT.

III.2.1. Market Opportunity.

To see the opportunity of the plastic bag product, the data that gather from the Departmen Perindustrian is presented below :

Year	Demand (in ton)	Capacity (in ton)	Production (in ton)	Opportunity
1986 (a)	37.202	14.400	10.944	26.258
1987 (a)	25.243	14.400	11.232	14.011
1988 (a)	30.568	14.400	11.520	19.048
1989 (a)	1.408.758	16.800	13.440	1.395.318
1990 (a)	1.534.600	20.640	17.889	1.516.711
1991 (a)	1.920.768	20.592	17.834	1.902.933
1992 *	2.358.599	22.080	19.444	2.339.155
1993 *	2.796.430	23.568	21.054	2.775.376
1994 *	3.672.092	26.544	24.273	3.647.819
1995 *	4.109.923	28.032	25.883	4.084.040
1996 *	4.547.754	29.520	27.493	4.520.262

(a) source from Departement Perindustrian

* Projection figure using linier regresion

Viewed from the above data, in year 1991 the total production during the year is 0,93% from the market demand.

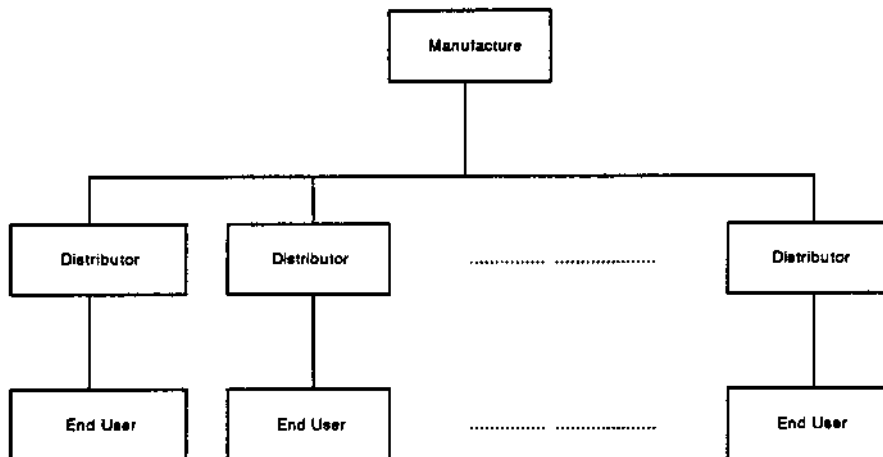
The production for the plastic bag for the first year is only 0,08% compared to the forecast demand in the year 1993. The manufacture that produce the similar product in

1993. The manufacture that produce the similar product in 1991 is approximately 53 company with the total production of 17,834 ton/year

III.2.2. Marketing Strategy.

The product of plastic bag that produce from the plant is to serve the local market. To reach the market which are located out side West Java or in the area of West Java the firm will use the agent as the distributor of the plastic bag product.

Sistimatic of Distribution



III.2.3. Pricing Policy.

The pricing policy of the product will be based on the calculation bellow :

Cost of Good Sold	:	Rp. 4.437.760.000	,-
Operating Expenses	:	Rp. 1.462.540.000	,-
Total	:	Rp. 5.900.300.000	,-

Unit price	:	$\frac{\text{Total Cost}}{\text{Unit Produce}}$	:	$\frac{5.900.300.000}{1.866.240.000}$,-
					:- Rp. 3.160 ,-

The market price of such product is approximatly Rp. 3.500 ,-, which mean the product price is lower than the market price so the price can be obtain.

III.3. TECHNICAL & PRODUCTION ASPECT.

III.3.1. Technical Aspect.

The location of the project will be in Pasir Jaya region, Tangerang regent, Jawa Barat Province.

The total land available are 8.660 M2. The plant is located in the industrial area. The reason to chose the location is :

- The zoning is establish by the government district.
- Accesibility to raw material and distribution.
- Availibility of skill work force or unskill workforce.
- Availibility of electricity, water, and telecommunication.

The location sounds feasibel to make an investment of the plastic bag making plant.

III.3.2. Factory Building.

The bulding is constructed from steel, and the lay-out of the plant are as follow :

- Storage area, with total	115,00 M2
- Workshop & Spare Parts area, with total	60,00 M2
- Cut & Seal area, with total	552,00 M2
- Blown Film area, with total	414,00 M2
- Pelletizing area, with total	414,00 M2
- Roll Storage	240,00 M2
- Mixing Storage	48,00 M2
- Resin Storage	288,00 M2
- Drilling Aval Storage	480,00 M2
- Dryer Area	240,00 M2
- Washing Line & Crusher Area	118,00 M2

Total	2,969,00 M2
Office Building	138,00 M2
Other Building	96,50 M2
Utilility	2,653,50 M2
Waterworks with length of	25,00 M2
Railing/hedge with length of	52,00 M2

Total	5,857,00 M2

Basic Coeffisient Construction :

5,857,00 M2
----- = 35,40% (goverment district requier 40%)
8,660,00 M2

III.3.2. Projection of Project Cost.

The price of land with total area 8,660 M2 are Rp.45.000,00/M2 so the total cost are Rp. 389,700,000 ,-

Building investment are,

- Factory Building of 2,969 M2 @ Rp. 175,000 ,- /M2	Rp. 519.575,000 ,-
- Director & Factory Adm Office of 138 M2 @ Rp. 200,000 /M2	Rp. 27,600,000 ,-
- Genset Room of 30 M2 @ Rp. 250,000 /M2	Rp. 7,500,000 ,-
- Security of 12 M2 @ Rp. 200,000 ,-	Rp. 900,000 ,-
- Musholla of 25 M2 @ Rp. 200,000 ,- /M2	Rp. 5,000,000 ,-
- Technicion room of 25 M2 @ Rp. 125,000 ,- /M2	Rp. 3,125,000 ,-

- Restroom construction of 25 M2 @ Rp. 75,000 ,- /M2	Rp.	337,500 ,-
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Total buiding construction	Rp.	564,037,500 ,-
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Utility,

- Parking Area of 15 M2 @ Rp. 25,000 ,- /M2	Rp.	375,000 ,-
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- Garden of 7,5 M2 @ Rp. 25,000 ,- /M2	Rp.	187,500 ,-
-------------------------------------------	-----	------------

- Roads of 27 M2 @ Rp. 25,000 ,- /M2	Rp.	675,000 ,-
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- Waterworks of 25 M2 @ Rp. 35,000 ,- /M2	Rp.	875,000 ,-
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- Plastic aval Construction of 2,604 M2 @ Rp. 25,000 ,- /M2	Rp.	65,100,000 ,-
----------------------------------------------------------------	-----	---------------

- Hedge of 51 M2 @ Rp. 75,000 ,- /M2	Rp.	3,852,000 ,-
-----------------------------------------	-----	--------------

Total utility	Rp.	71,037,500 ,-
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Machinery,

- 1 unit FBM Pelletizing Machine	Rp.	487,500,000 ,-
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- 1 unit FBM Washing line	Rp.	380.000,000 ,-
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- 1 unit sound proof box for granula- tor PM 6/F	Rp.	144,000,000 ,-
-----------------------------------------------------	-----	----------------

- 1 unit sound proof box for centri- fu		
--------------------------------------------	--	--

- 1 unit sound proof box for centri- fugal & cyclone tank	Rp.	144,000,000 ,-
--------------------------------------------------------------	-----	----------------

- 4 unit bag making machine	Rp.	160,000,000 ,-
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- 6 unit Extruder Blown Film	Rp.	2,200,000,000 ,-
------------------------------	-----	------------------

- 3 unit pons machine	Rp.	15,000,000 ,-
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- 6 unit automatic high speed cutting machine	Rp.	480,000,000 ,-
--------------------------------------------------	-----	----------------

- 2 unit resin mixer machine	Rp.	22,000,000 ,-
------------------------------	-----	---------------

- 3 unit air compressor	Rp.	19,500,000 ,-
-------------------------	-----	---------------

Total Production machine	Rp.	4,052,000,000 ,-
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- 1 unit spare part equipment (5% of production machine)	Rp.	202,600,000 ,-
-------------------------------------------------------------	-----	----------------

Total production machine	Rp.	4,254,600,000 ,-
--------------------------	-----	------------------

- 2 unit wieght scale	Rp.	4,000,000 ,-
-----------------------	-----	--------------

Total Machine & Equipment	Rp.	4,258,600,000 ,-
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Mechanical, Electrical & instalation,

- Air conditioner,	Rp.	11,200,000 ,-
--------------------	-----	---------------

- Exhaust fan	Rp.	6,000,000 ,-
<hr/>		
Total	Rp.	17,200,000 ,-
Electricity Distribution,		
- Electricity Instalation	Rp.	96,487,500 ,-
- 1 unit genset	Rp.	110,000,000 ,-
- Gas tank (1000 ltr capacity)	Rp.	5,000,000 ,-
<hr/>		
Total	Rp.	211,487,500 ,-
Water Distribution,		
- 1 unit water pump	Rp.	5,000,000 ,-
- 1 unit sand filter	Rp.	10,000,000 ,-
- 1 unit water softener	Rp.	9,500,000 ,-
- 1 unit booster pump	Rp.	2,500,000 ,-
- 1 unit distribution pipe	Rp.	5,000,000 ,-
<hr/>		
Total	Rp.	32,000,000 ,-
Communcation System,		
- 1 telephone line	Rp.	3,000,000 ,-
- 1 unit PABX	Rp.	25,000,000 ,-
- 1 unit Facsimile	Rp.	5,000,000 ,-
<hr/>		
Total	Rp.	33,000,000 ,-
Audio System,	Rp.	20,000,000 ,-
Administration Office,	Rp.	32,500,000 ,-
Factory, (chair, locker, etc)	Rp.	5,500,000 ,-
Technition Room, (chair, locker, etc)	Rp.	3,590,000 ,-
Conference hall, (chair, overhead projector, white board, etc)	Rp.	5.500.000 ,-
Fire Equipment, (Hydrant, alarm, etc)	Rp.	40,000,000 ,-
Transportation, (truck, minibus)	Rp.	42,500,000 ,-
Pre-Operating Cost, (machinery ins- tallation, training, etc)	Rp.	95,000,000 ,-
<hr/>		
Over all investment project cost	Rp.	5,821,652,500 ,-

Machinery that use to produce plastic bag are the standart machinery that are use in the standart proposal of

the taiwan manufacture :

- 1 Unit FBM Pelletizing (25KW)
- 1 Unit FBM Washing line (35KW)
- 1 Unit Sound Proof Box (20KW)

III.3.3. Production Schedule.

Plastic bag have different size which are :

- | | |
|----------------|--------------|
| - 01 x 14/27 | - 01 x 23/40 |
| - 01 x 15/27 | - 01 x 21/30 |
| - 01 x 15/30 | - 02 x 28/46 |
| - 01 x 15/28 | - 02 x 28/47 |
| - 01 x 21/35 | - 02 x 28/48 |
| - 01 x 23/35,5 | - 02 x 32/53 |

from the different size of the product, the plastic bag is categorize into 3 criteria based on the tickness which are :

- 8 Micron
- 5 Micron
- 1 Micron

Using the above machinery the plant could produce 90 kg/hour.

6 unit machine = 90 x 6 unit = 540 Kg/Hr

1 Day = 540 x 24 hr = 12.960 Kg/day

1 Month the plant could produce =

20 x 12.960 kg = 259.200 Kg/Month

1 Year the production could produce (full capacity)

12 x 259.200 = 3.110.400 Kg/Year

The plant will produce 70% of the total capacity for the first year, 80% for the second year, 90% for the third

year, and 95% for the following year. (See table)

The reason of not using full capacity for the first, second, third, and the fourth year is because :

- The machine is still in trial condition.
- The employee is in training periode.
- The possibility of high cost of maintainance for using full capacity.

III.3.4. Raw Material Requirment.

Raw material to produce plastic bag is polypropylene high density which are available in the lokal market. There are no problem of raw material. The resin polypropylene which are the waste of the production can be used as the raw material.

The recycle proces from the production is available on the second year since in the manufacture have just produce the product.

III.3.5. Support Material.

Beside using the polypropelene, the supporting material that nedeed to be use are plastic packaging. The support material use are :

- Brown Plastic Bag 22 Kg @ Rp. 150,00 /piece
- White Plastic Bag 22 Kg @ Rp. 250,00 /piece
- Plastic bag for recycle resin 22 Kg @ Rp. 250,00 /piece
- Plastic bag / 400 piece @ Rp. 6,00 /piece
- Label @ Rp. 0,40 /piece

III.3.6. Flow of Production.

In general the production flow of the plastic bag are as follow :

- High density polypropelene chip are heated and mixed into a mass of molten plastic.
- This molten material is then extruded through a circular die to form a tube of plastic film. Air is blown through the tube to keep it inflated thus preventing one part of the tube from sticking to another part of the tube.
- The tube of extruded film, having been adequately cooled by the air passing through it, is laid flat and wound onto rolls.
- The bags, which are stacked together in blocks, are then automatically transferred to a rubber anvil, where a U-shaped cutting die automatically punches out a segment of plastic near the top of each bag to serve as a handle.

III.3.7. Recycle Process.

The recycle machine is use as to recycle the plastic waste which are going to be proces to be a resin polypropelene high density.

The plastic waste is being wash before it's being recycle. After being washed, the plastic waste is being put in to the shredder machine and cut into pieces. The pieces of plastic waste than recycle by the recycling machine, in which the plastic is being mold before the plastic waste is being press through the pelletizing machine.

III.4. MANAGEMENT ASPECT.

III.4.1. Organisation Structure.

To achieve the company objective, the firm will use the same as the other company organisation structure.

- Director,

Which is the top executive of the company and also the major share holder of the firm.

- General Manager,

The requirement of the person who will fill the position is a person who have the experiance in plastic bag manufacture. The general manager have to know about finance, and knows how to market the product.

- Production Manager,

The production manager have responsible of the production technology, quality of the product, and have to be effective and profit oriented person.

- Administration & Finance Manager,

have to responsible of,

- Control of source & uses of funds

- Cost control of the company

- To developed the administration system of the company.

- The responsibility to presented the financial report to executive director and the share holder.

- Marketing Manager,

have responsible of,

- Choosing the agent to distribute the product viewed from the ability to meet the payment schedule and volume of

sales.

- Followed the market trend of such product, and be able to see the movement of the competitor.

III.4.2. Employee Requirement and Salary Projection.

The employee requirement to run the manufacture are :

Position	Numb. of person	Kualification	Salary/Mnth
Director	1	Owner	Rp. 750.000
General Manager	1	Profesional	Rp. 700.000
Manager :			
- Production	1	Bachelor (Eng.)	Rp. 300.000
- Adm & Finance	1	Bachelor (Ak.)	Rp. 300.000
- Marketing	1	Bachelor (Ec.)	Rp. 300.000
Production Div.			
- R & D	6	Bachelor (Eng)	Rp. 175.000
- Prod. Supv.	6	Tech. High School	Rp. 150.000
- Inv. Supv.	18	High School	Rp. 150.000
- Procurment	6	High School	Rp. 85.000
Marketing Division :			
- Secretary	4	High School	Rp. 75.000
Adm & Fin. Div. :			
- Accountant	3	Economic High Sch.	Rp. 150.000
- Staff	3	High School	Rp. 75.000
- Cashier	2	High School	Rp. 125.000
- Personel	2	High School	Rp. 75.000
- Driver	2	Lincences	Rp. 125.000
- Office Boy	3	Preliminary Sch.	Rp. 50.000
- Security	3	Sec. Education	Rp. 85.000
- Proc. Off. Eq.	2	High School	Rp. 85.000

III.5. FINANCIAL ASPECT.

III.5.1. Plant Investment.

Land	Rp. 389,700,000 , -
Buiding construction	Rp. 564,037,500 , -
Utility	Rp. 71,037,500 , -
Machine & Equipment	Rp. 4,258,600,000 , -
Mechanical & Electrical	Rp. 17,200,000 , -
Water Dustrubution	Rp. 211,487,500 , -
Electricity Distribution	Rp. 32,000,000 , -
Communication	Rp. 33,000,000 , -
Audio System	Rp. 20,000,000 , -
Administration Office	Rp. 32,500,000 , -
Factory	Rp. 5,500,000 , -
Technition Room	Rp. 3,590,000 , -
Conference hall	Rp. 5.500.000 , -
Fire Equipment	Rp. 40,000,000 , -

Transportation	Rp.	42,500,000	,-
Pre-Operating Cost	Rp.	95,000,000	,-

Total investment	Rp.	5,821,652,500	,-
Investment During Construction	Rp.	515,586,000	,-

Total Project Investment	Rp.	6,337,241,500	,-

The total funds will be provided from :

Own Capital - 40%	Rp.	2,534,896,500	,-
Loan (Bank) - 60%	Rp.	3,802,345,000	,-

Total Funds	Rp.	6,337,241,500	,-

III.5.2. Working Capital Requirement.

Working capital requirement is based of the assumption of :

- Raw Material Inventory	1 Month
- Packaging Material Inventory	1 Month
- Work In Process	0,5 Month
- Finished Good Inventory	1 Month
- Accounts Receivable	1 Month

The working capital requirement will be presented in table 5.2 with the total of Rp. 1,692,883,000 , - for 1 year and the funds will be provide from :

Own Capital	40%	Rp.	677,153,000	,-
Loan (Bank)	60%	Rp.	1,015,730,000	,-

Total		Rp.	1,692,883,000	,-

III.5.3. Loan Repayment Schedule.

The loan repayment for working capital & investment will be presented in table 5.3 & 5.4 in which the loan repayment for investment will started from the year 2 and for the year 0 and 1 the firm could cover the interest during construction. For the loan repayment for the working capital will started from the year 1.

III.5.4. Selling Price.

The selling price of the plastic bag product are :

- 8 Micron -- Rp. 3,100 ,- /Kg
- 5 Micron -- Rp. 3,350 ,- /Kg
- 1 Micron -- Rp. 3,500 ,- /Kg

and the selling price will be assume to increase 5% per year.

III.5.5. Direct Cost.

III.5.5.1. Raw Material.

- White H.D.P. Rp. 2,150 ,- /Kg
- Colored H.D.P. Rp. 1,000 ,- /Kg
- Recycle H.D.P. Rp. 4,100 ,- /Kg

the raw material will be asume to increase 5% each year.

III.5.5.2. Recycle Waste.

To recycle the waste of the product, the firm needed extra Rp. 550 ,- to purchase plastic waste, and the other plastic waste could be provided the own production waste, which this condition could minimize the polution of plastic waste. It will be assume the cost will increase 5% each year. Plastic waste cleaning cost will be Rp. 200 ,- /Kg

III.5.5.3. Packaging Material.

For packaging material, the requirment are :

Description	Usage	Price/sheet
- White plastic bag	1 sheet/22 Kg	Rp. 250 ,- /sheet
- Brown plastic bag	1 sheet/22 Kg	Rp. 150 ,- /sheet
- Packaging for Recycle resin	1 sheet/22 Kg	Rp. 250 ,- /sheet
- Plastic bag	400 sheet/22 Kg	Rp. 6 ,- /17 sheet
- Label	400 sheet/22 Kg	Rp. 0,40 /sheet

The price of packaging material will be assume to increase 5% each year.

III.5.5.4. Direct Labor Cost.

Direct labor with the assumption of 90 person will be presented in table 5.6. The direct labor cost will be assume to increase 5% per year.

III.5.6. Indirect Cost.

III.5.6.1. Salary Projection.

The salary projection will be presented in talbe 5.6, and it will be assume to increase 5% each year.

III.5.6.2. Welfare.

The assumption of welfase is 10% of the total salary.

III.5.6.3. Electricity.

The calculation of electricity usage are :

LWBP (over regular time usage) = $(11,728 + 2,375.2)$ Kwh x Rp. 68

WBP (regular time usage) = $(26,384 + 1,187.6)$ Kwh x Rp. 134

Minimum charge = 415 Kva x 12 Month x Rp. 2.200

Total Electricity cost = Rp. 22,885,612 ,-, and it will be assume that the electricity cost will increase 5% each year.

III.5.6.4. Oil & Gasoline.

The calculation of oil & gasoline usage are :

Gas = $12 \times 415 \text{ Kva} \times 0,8 \times 24 \text{ hr} \times 0,3 \text{ Ltr/Kwh} \times \text{Rp. } 325 \text{ ,-}$

Oil = $2\% \times 12 \times 415 \text{ Kva} \times 0,8 \times 24 \text{ hr} \times 0,3 \text{ Ltr/Kwh}$

Rp. 4.000 ,-

Total usage Rp. 11.617.344 ,-, and it will be assume to increase 5% each year.

III.5.6.5. Water Consumption.

The calculation of water consumption are :
 $28,37 \text{ m}^3 \times 20 \text{ days} \times 12 \text{ month} \times \text{Rp. } 400 /\text{m}^3 = \text{Rp. } 2.723,520$
and it will be assume to increase 5% each year.

III.5.6.6. Insurance Cost.

The insurance cost for building mechanical, machinery and utility are 25% from total investment and it will be assume to increase 5% each year.

III.5.6.7. Depreciation.

The depreciation schedule will be presented in table 5.7 and the mehode of depreciation is Straight Line with the condition :

- Building will be depreciated for 5% each year.
- Machinery will be depreciated for 10% each year.
- Mechanical, Electrical, and Utility will be depreciated for 10% each year.

III.5.7. Selling Cost.

The selling cost will be asume to increase 5% each year.

For bonus & walfare it will be assume 15% from total salary of marketing department salary.

III.5.8. Finance & Administration Cost.

III.5.8.1. Maintainance Cost.

The maintainance cost will be assume 5% from transportation and other equipment, and it will be assume to increase 5% each year.

III.5.8.2. Office Staff Salary.

The office staff salary will be presented in table 5.6, and it will be assume to increase 5% each year.

III.5.8.3. Staff Welfare.

It will be assume that staff welfare will be 15% from total office staff salary.

III.5.8.4. General & Administration Cost.

General & Administration cost will be included, expedition cost, gas, communication, office equipment, and other general cost assume to be Rp.1.500.000 ,- each year and it's assume to increase 5% each year.

III.5.8.5. Tax on Land and Building.

The tax on land and building will be charge 0,1% from total building and land which is Rp. 1.022.775 ,-

IV.5.8.6. Depreciation & Amortisation.

The depreciation for transportation and other equipment will be assume 20% each year be using Straght Line Methode, and the Pre-Operating expenses and interest during construction will be amortized for 10 year, the projection will be presented in table 5.7.

III.5.8.7. Non-Operating Expenses.

The non-operating expenses will be the interest expenses, which is charge 26% pa.

III.5.8.8. Income Tax.

The calculation on income tax are :

- Income to Rp. 10.000.000 ,-	= 15 %
- Income from Rp. 10.000.000 to Rp. 50.000.000 ,-	= 25 %
- Income more than Rp. 50.000.000 ,-	= 35 %

III.5. SWOT Analysis.

III.5.1. ETOP (Environmental Threat And Opportunity Profile).

Environmental Sector	Impact of Each Sector
Socioeconomic	<ul style="list-style-type: none">(-) Uncertain of Government Regulation.(+) Declining in interest rate.(-) The economic still effected by tight money policy.(+) Competitive in Banking Industry.
Tecnological	<ul style="list-style-type: none">(+) Using the machinery made from Taiwan which are the machinery are common used by the plastic bag manufacture.
Government	<ul style="list-style-type: none">(+) The goverment emphasize on the non-oil sector.(+) The project are not in the negative list in the investment list.
Customer	<ul style="list-style-type: none">(+) The user of the product are the supermarket, department store, retail store, and other industry that needed the product.
Supplier	<ul style="list-style-type: none">(+) 1% of the raw material is imported end the it could be imported through the sole agent.
Competitor	<ul style="list-style-type: none">(+) The market is very competitiv€, viewed from the market oppotunity

the manufacture only produce 0,08%
from the forecast demand.

III.5.2. SAP (Strategic Advantage Profile).

Internal Area	Competitive Strength or Weakness
Marketing	(+) Big opportunity in the market. (+) Using the distribution system to reached the market.
R & D	(+) The company provide R & D
Operations	(+) Line production to produce the plastic bag. (-) Price of imported raw material is high. (+) Waste of plastic could be recycle, which are waste of production are 34% of the total production.
Corporate Resources	(+) Available of labor. (+) Available of raw material.
Finance	(+) The total investment is below the legal lending limit of banking policy. (+) Interest During Construction covered in the initial stage. (+) Internal Rate of Return 32,53% and Net Present Value 1.391.374

CHAPTER IV

SUMMARY & CONCLUSIONS

VI.1. CONCLUSION.

1. With the Internal Rate of Return and Net Present Value of 30,14% and 833,984, it can be concluded that the project is feasible.

Using the sensitivity analysis the result are,

If sales decrease to 2,5 %

Internal Rate of Return = 28,95 %

Net Present Value = 580,767

if cost increase to 2,5 %

Internal Rate of Return = 29,33 %

Net Present Value = 655,326

if sales decrease to 5 %

Internal Rate of Return = 26,86 %

Net Present Value = 166,823

if cost increase to 5 %

Internal Rate of Return = 27,63 %

Net Present Value = 315,941

if sales decrease to 7,5 %

Internal Rate of Return = 24,71 %

Net Present Value = (247,121)

if cost increase to 7,5 %

Internal Rate of Return = 25,88 %

Net Present Value = (23,444)

2. Capitalization, which in the initial stage consist of 40% equity and interest during construction covered in the initial stage, is considered adequate to acquire loan from the bank.

3. Break-Even Point are :

149 % at year 1	40 % at year 6
75 % at year 2	34 % at year 7
69 % at year 3	31 % at year 8
56 % at year 4	28 % at year 9
45 % at year 5	25 % at year 10

4. The financial ratio of the projection are :

Current Ratio,

1,78 at year 1

3,32 at year 2

7,03 at year 3

Quick Ratio,

0,65 at year 1

1,40 at year 2

2,57 at year 3

Debt to Asset Ratio,

0,64 at year 1

0,56 at year 2

0,41 at year 3

0,13 at year 4

Debt To Equity Ratio,

1,78 at year 1

1,27 at year 2

0,69 at year 3

0,15 at year 4

Long Term Debt To Equity Ratio,

1,45 at year 1

1,09 at year 2

0,62 at year 3

0,15 at year 4

Total Asset Turn Over,

0,74 at year 1 1,46 at year 6

1,03 at year 2 1,31 at year 7

1,31 at year 3 1,18 at year 8

1,68 at year 4 1,08 at year 9

1,62 at year 5 0,99 at year 10

Working Capital Turn Over,

8,11 at year 1 2,14 at year 6

5,51 at year 2 1,65 at year 7

5,03 at year 3 1,36 at year 8

4,96 at year 4 1,17 at year 9

3,03 at year 5 1,03 at year 10

Operation Profit Margin,

13,44 % at year 1 30,19 % at year 6

23,36 % at year 2 30,61 % at year 7

25,76 % at year 3 30,96 % at year 8

27,40 % at year 4 31,26 % at year 9

28,97 % at year 5 31,55 % at year 10

Profit Margin,

(8.89) % at year 1	-	19.67 % at year 6
6.75 % at year 2	-	21.92 % at year 7
9,08 % at year 3	-	23.25 % at year 8
13.39 % at year 4	-	24.49 % at year 9
17.74 % at year 5	-	25.67 % at year 10

Viewed from the profit margin of the project, the project could be considered profitable.

Return on Investment,

(0,066) at year 1	0,29 at year 6
0,07 at year 2	0,29 at year 7
0,12 at year 3	0,27 at year 8
0,22 at year 4	0,26 at year 9
0,29 at year 5	0,25 at year 10

Return on Equity,

(0,184) at year 1	0,29 at year 6
0,16 at year 2	0,29 at year 7
0,20 at year 3	0,27 at year 8
0,26 at year 4	0,26 at year 9
0,29 at year 5	0,25 at year 10

5. The opportunity to enter the market are still open in which it could be seen from the percentage of the total production of the plant in the first year compared to the total demand of such product in the market.
6. The Indonesian economy today which strongly requires more non-energy product, is favourable for such industries.

7. The management quality is considered sound judging by the fact that the people in the management and the supervisory board are people with adequate education.

VI.2. RECOMENDATION.

- Viewed from the sensitivity analysis, the project is sensitive when the sales decrease to 10% and cost increase to 10%, this condition doesn't mean that the project are not feasible, in such condition the management could already predict such possibility.
- Typically the goals and budget are spelled out for each month or quarter. Higher management can review the result of each periode and spor businesses that are not attaining their goal.
- Diversification, which mean the business can reduce risk failure by operating in several market rather than in single market. Diversification allows the firm to protect itself againts its collapse of sales in a single product.

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APPENDIX I
FINANCIAL PROJECTION

TABEL III.5.A.

Investment Scheme

Description	Quarter				TOTAL (Rp.,000)
	I	II	III	IV	
- Land	389.700	0	0	0	389.700
- Building & Facility	63.508	254.030	317.538	0	635.075
- Machinery & Equipment		1.277.580	2.129.300	851.720	4.258.600
- Mechanical, Electrical & Utility		104.275	130.344	26.069	260.688
- Others	0	0	0	140.090	140.090
- Transportation	0	0	0	42.500	42.500
- Pre-Operating Expenses	38.000	28.500	19.000	9.500	95.000
- J.D.C.	19.157	84.068	185.319	227.044	515.588.824
Total Investment	510.365	1.748.453	2.781.500	1.296.923	6.337.241
Investment :					
Own Capital 40%	196.483	665.754	1.038.473	427.952	2.328.661
Loan (Bank) 60%	294.725	998.631	1.557.709	641.927	3.492.992
Total Investment	491.208	1.664.385	2.596.181	1.069.879	5.821.653
J.D.C. :					
Own Capital 40%	7.003	33.627	74.128	90.818	206.236
Loan (Bank) 60%	31.494	50.441	111.192	136.227	309.353
Total J.D.C.	19.157	84.068	185.319	227.044	515.589
Source of Funds :					
Own Capital 40%	204.146	699.381	1.112.600	518.769	2.534.897
Loan (Bank) 60%	306.219	1.049.072	1.668.900	778.154	3.802.345
Total of Funds needed	510.365	1.748.453	2.781.500	1.296.923	6.337.241

TABEL III.5.D. Production & Sales Schedule										
Description	1	2	3	4	5	6	7	8	9	10
Capacity		60%	65%	70%	75%	80%	80%	80%	80%	80%
Production Schedule										
- 8 Micron (30%)	539,872	606,528	653,184	699,840	746,496	746,496	746,496	746,496	746,496	746,496
- 5 Micron (50%)	933,120	1,010,880	1,088,640	1,166,400	1,244,160	1,244,160	1,244,160	1,244,160	1,244,160	1,244,160
- 1 Micron (20%)	373,248	454,352	535,456	616,560	697,664	697,664	697,664	697,664	697,664	697,664
Total Production (Kg)	1,860,240	2,021,760	2,177,280	2,332,800	2,488,320	2,488,320	2,488,320	2,488,320	2,488,320	2,488,320
Beginning Work in Process	0	77,760	84,240	90,720	97,200	103,680	103,680	103,680	103,680	103,680
Ending Work in Process	77,760	84,240	90,720	97,200	103,680	103,680	103,680	103,680	103,680	103,680
Total Finished Good	1,788,480	2,015,280	2,170,800	2,326,320	2,481,840	2,488,320	2,488,320	2,488,320	2,488,320	2,488,320
Beginning Balance	0	149,040	167,940	180,960	193,980	206,820	207,360	207,360	207,360	207,360
Ending Balance	149,040	167,940	180,960	193,980	206,820	207,360	207,360	207,360	207,360	207,360
Total sales (Kg), contains of :	1,639,440	1,996,380	2,157,840	2,313,360	2,468,880	2,487,760	2,488,320	2,488,320	2,488,320	2,488,320
- 8 Micron (30%)	491,832	598,914	647,352	694,008	740,664	746,334	746,496	746,496	746,496	746,496
- 5 Micron (50%)	819,720	998,190	1,078,920	1,156,680	1,234,440	1,243,890	1,244,160	1,244,160	1,244,160	1,244,160
- 1 Micron (20%)	327,888	399,276	431,568	462,672	493,776	497,556	497,664	497,664	497,664	497,664
Sales Price (in Rp.000) increase 10% / year :										
8 Micron	3,10	3,41	3,75	4,13	4,54	4,99	5,49	6,04	6,65	7,31
- 5 Micron	3,35	3,69	4,05	4,46	4,90	5,40	5,93	6,53	7,18	7,90
- 1 Micron	3,50	3,85	4,24	4,66	5,12	5,64	6,20	6,82	7,50	8,25
Sales (in Rp.000) :										
- 8 Micron	1,524,679	2,042,297	2,428,217	2,863,546	3,361,659	3,726,133	4,099,636	4,509,600	4,960,559	5,456,615
- 5 Micron	2,746,062	3,678,330	4,373,302	5,157,463	6,054,001	6,711,046	7,383,753	8,122,128	8,934,341	9,827,775
- 1 Micron	1,147,608	1,537,213	1,827,690	2,155,358	2,530,281	2,804,616	3,085,747	3,394,322	3,733,754	4,107,130
Total sales (in Rp.000)	5,418,349	7,257,839	8,629,310	10,176,367	11,946,541	13,241,795	14,569,136	16,026,050	17,628,655	19,391,520

TABEL III.5.G.

Raw Material Requirement Schedule

Description	Usage	Price/Kg (Rp. 1000)	1	2	3	4	5	6	7	8	9	10
Usage (1.25 x produk(s))												
Usage Schedule												
White P.H.D.	65%		1.516.320	1.642.080	1.769.040	1.895.400	2.021.760	2.021.760	2.021.760	2.021.760	2.021.760	2.021.760
Recycle P.H.D.	34%		793.152	0	0	0	0	0	0	0	0	0
Colored P.C.K.	1%		23.328	25.272	27.216	27.216	27.216	27.216	27.216	27.216	27.216	27.216
Waste Plastic			0	345.060	366.930	388.800	410.670	349.920	349.920	349.920	349.920	349.920
			583.200	0	631.860	686.400	729.000	777.000	777.000	777.000	777.000	777.000
Total material used			2.590.112	2.590.112	2.794.980	2.991.810	3.188.640	3.176.496	3.176.496	3.176.496	3.176.496	3.176.496
Financing Schedule												
White P.H.D.		2.150	3.260.088	3.884.938	4.602.158	5.423.971	6.304.126	7.000.559	7.700.593	8.470.652	9.317.718	10.249.489
Recycle P.H.D.		1.000	793.152	0	0	0	0	0	0	0	0	0
Colored P.C.K.		4.100	95.648	113.977	135.019	148.520	163.372	179.710	197.081	217.449	239.194	263.113
Waste Plastic		0.350	0	208.261	244.192	284.621	330.694	309.952	340.948	375.042	412.547	453.801
Total Raw Material Usage			4.148.885	4.207.676	4.981.368	5.857.113	6.838.193	7.490.201	8.239.221	9.063.193	9.969.458	10.966.403
Beginning Inventory			0	350.040	415.114	488.093	571.510	634.183	686.602	755.262	830.788	913.867
Ending Inventory			350.040	415.114	488.093	571.510	634.183	686.602	755.262	830.788	913.867	1.005.254
Total Purchase			4.499.524	4.272.151	5.054.347	5.940.536	6.910.860	7.552.619	8.307.881	9.138.670	10.052.537	11.057.790

TABEL III.5.II.
Packaging Material Projection

Description	Usage	Price/Piece (Rp.)	1	2	3	4	5	6	7	8	9	10
Production Schedule (Kg)			1.866.243	2.021.760	2.177.280	2.177.280	2.177.280	2.177.280	2.177.280	2.177.280	2.177.280	2.177.280
Usage Plan (Sheet)												
White Plastic Bag	Per 2.2Kg./1 Sheet		84.829	91.898	98.967	98.967	98.967	98.967	98.967	98.967	98.967	98.967
Brown Plastic Bag	Per 2.2Kg./1 Sheet		84.829	91.898	98.967	98.967	98.967	98.967	98.967	98.967	98.967	98.967
Recycle Kraft Packaging	Per 2.2Kg./1 Sheet		0	0	0	0	0	0	0	0	0	0
Plastic Bag	Per 2.2Kg./400 Sheet		33.931	36.759	39.586	39.586	39.586	39.586	39.586	39.586	39.586	39.586
Label	Per 2.2Kg./400 Sheet		33.931	36.759	39.586	39.586	39.586	39.586	39.586	39.586	39.586	39.586
Financing												
White Plastic Bag	Rp. 250.000/sh		21.207	25.272	29.938	32.931	36.224	39.847	43.832	48.215	53.036	58.340
Brown Plastic Bag	Rp. 150.000/sh		12.724	15.163	17.963	19.739	21.735	23.908	26.299	28.929	31.822	35.004
Recycle Resin Packaging	Rp. 250.000/sh		0	0	0	0	0	0	0	0	0	0
Plastic Bag	Rp. 6.000/17 lb		11.976	14.271	16.906	18.597	20.456	22.502	24.752	27.227	29.950	32.945
Label	Rp. 0.400/sh		13.574	16.174	19.160	21.076	23.184	25.502	28.052	30.857	33.943	37.338
Total Packaging Usage			68.493	76.881	83.966	92.363	101.599	111.759	122.935	135.228	148.751	163.626
Beginning Inventory			0	5.907	6.997	7.697	8.467	9.313	10.245	11.269	12.396	13.636
Ending Inventory			5.907	6.997	7.697	8.467	9.313	10.245	11.269	12.396	13.636	14.990
Total Purchase			74.400	71.971	84.666	93.132	102.446	112.690	123.939	136.355	149.991	164.990

TABLE III.5.R.

Working Capital

(RP,000)

Year

Description	Year									
	Total	2	3	4	5	6	7	8	9	10
Raw Material Inventory 1 month	350.640	415.114	488.093	571.516	624.183	686.602	755.262	830.788	913.867	1,005.254
Work In Process Inventory 1 month	5.907	6.997	7.697	8.467	9.313	10.245	11.269	12.396	13.636	14.999
Work In Process Inventory 0,5 month	210.487	222.232	258.687	298.985	344.040	374.187	409.590	448.534	491.372	538.463
Finished Good Inventory 1 month	403.433	443.485	514.336	594.611	684.325	745.861	816.229	893.822	979.173	1,073.060
Acc. Receivable 1 month	451.529	604.820	719.109	848.031	993.545	1.103.483	1.214.095	1.335.504	1.469.055	1.615.960
Total Working Capital	1.421.995	1.692.649	1.987.922	2.321.609	2.657.407	2.920.377	3.206.445	3.521.043	3.867.102	4.247.766

TABEL III.5.C.
Investment Repayment Schedule (R.P. 000)

Description	Loan	Int. 26 %	Payment
Year 0	3,802,345	I.D.C.	0
Year 1	3,802,345	988,610	0
Year 2	3,802,345	988,610	422,483
Year 3	3,379,862	878,764	965,675
Year 4	2,414,187	627,689	1,609,458
Year 5	804,729	209,230	804,729
Year 6	0	0	0
Year 7	0	0	0
Year 8	0	0	0
Year 9	0	0	0

TABEL III.5.C.
Schedule for Working Capital Loan Repayment (R.P. 000)

Description	Loan	Int. 26 %	Payment
Year 0	853,197	221,831	0
Year 1	853,197	221,831	284,399
Year 2	568,798	147,887	284,399
Year 3	284,399	73,944	284,399
Year 4	0	0	0
Year 5	0	0	0
Year 6	0	0	0
Year 7	0	0	0

TABEL III.5.F.

Depreciation Projection										
(Rp. 000)										
Description	1	2	3	4	5	6	7	8	9	10
Depreciation										
Building & Facility	31.754	31.754	31.754	31.754	31.754	31.754	31.754	31.754	31.754	31.754
- Machinery & Equipment	425.860	425.860	425.860	425.860	425.860	425.860	425.860	425.860	425.860	425.860
- Mechanical, Electrical, & Utilities	26.069	26.069	26.069	26.069	26.069	26.069	26.069	26.069	26.069	26.069
- Other Equipment	28.018	28.018	28.018	28.018	28.018	0	0	0	0	0
- Transportation	8.500	8.500	8.500	8.500	8.500	0	0	0	0	0
Total Depreciation	520.201	520.201	520.201	520.201	520.201	483.683	483.683	483.683	483.683	483.683
Amortisation										
- I.D.C.	51.559	51.559	51.559	51.559	51.559	51.559	51.559	51.559	51.559	51.559
- Pre-Operating Expenses	9.500	9.500	9.500	9.500	9.500	9.500	9.500	9.500	9.500	9.500
Total Amortisation	61.059	61.059	61.059	61.059	61.059	61.059	61.059	61.059	61.059	61.059
Total Depreciation & Amortisation	581.259	581.259	581.259	581.259	581.259	544.741	544.741	544.741	544.741	544.741

TABEL III.5.E.

Salary Projection

Description	Total Work Force (Staff)	1	2	3	4	5	6	7	8	9	10
		Salary/Month (Rp.000)									
Production											
Indirect Labor											
- Production Manager	1	300,00	4.290	4.719	5.191	5.710	6.281	6.909	7.600	8.360	9.196
- R & D	3	175,00	7.508	8.258	9.084	9.992	10.992	12.091	13.300	14.630	16.093
- Production Supervisor	12	150,00	23.400	25.740	28.314	31.145	34.269	37.686	41.400	45.400	50.160
- Raw Material Storage	6	150,00	11.700	12.870	14.157	15.573	17.130	18.843	20.727	22.800	25.080
- Finished Good Storage	6	150,00	11.700	12.870	14.157	15.573	17.130	18.843	20.727	22.800	25.080
- Workshop & Maintenance	6	150,00	11.700	12.870	14.157	15.573	17.130	18.843	20.727	22.800	25.080
- Procurement	6	85,00	6.630	7.293	8.022	8.825	9.707	10.678	11.745	12.920	15.633
Sub-total	40	75.855	83.441	91.785	100.963	111.039	122.165	134.382	147.820	162.602	178.862
Direct Labor											
- Production labor	90	75,00	87.750	96.525	106.178	116.795	128.475	141.322	155.459	171.000	206.910
Sub-total	90	87.750	96.525	106.178	116.795	128.475	141.322	155.459	171.000	188.100	206.910
Marketing Staff											
- Marketing Manager	1	300,00	4.290	4.719	5.191	5.710	6.281	6.909	7.600	8.360	9.196
- Secretary	4	75,00	3.900	4.290	4.719	5.191	5.710	6.281	6.909	7.600	8.360
Sub-total	5	7.800	8.580	9.438	10.382	11.420	12.562	13.818	15.200	16.720	18.392
Director & Adm. & Finance											
- Director	1	750,00	10.725	11.798	12.977	14.275	15.702	17.273	19.000	20.900	22.990
- General Manager	1	700,00	9.100	10.010	11.011	12.112	13.323	14.656	16.121	17.733	19.507
- Finance & Adm. Manager	1	300,00	3.900	4.290	4.719	5.191	5.710	6.281	6.909	7.600	8.360
- Accountant	3	150,00	5.850	6.435	7.079	7.786	8.565	9.421	10.364	11.400	12.540
- Staff	3	75,00	2.925	3.218	3.539	3.893	4.282	4.711	5.182	5.700	6.270
- Cashier	2	125,00	3.250	3.575	3.933	4.326	4.758	5.234	5.758	6.333	6.967
- Personal	2	75,00	1.950	2.145	2.360	2.595	2.855	3.140	3.455	3.800	4.180
- Driver	2	125,00	3.250	3.575	3.933	4.326	4.758	5.234	5.758	6.333	6.967
- Office Buy	3	50,00	1.950	2.145	2.360	2.595	2.855	3.140	3.455	3.800	4.180
- Security	3	85,00	3.315	3.647	4.011	4.412	4.853	5.339	5.873	6.460	7.106
- Procurement	2	85,00	2.210	2.431	2.674	2.942	3.236	3.559	3.915	4.307	4.737
Sub-total	23	47.450	52.195	57.915	63.156	69.472	76.419	84.061	92.467	101.713	111.885
Total	158	218.855	240.741	264.815	291.296	320.426	352.468	387.715	426.486	469.135	516.049

*) Daily labor : Rp. 3.750 / day : 1 year : 240 hari

TABEL III. 5.1.

Cost of Good Build Projection

Description	1	2	3	4	5	6	7	8	9	10
Total Production (kg)	1.866.240	2.021.760	2.177.280	2.332.800	2.488.320	2.488.320	2.488.320	2.488.320	2.488.320	2.488.320
Direct Cost										
- Raw Material	4.148.885	4.317.676	4.981.368	5.857.113	6.858.193	7.490.201	8.239.221	9.063.143	9.969.458	10.966.403
- Packaging	68.493	76.881	83.966	92.363	101.599	111.759	122.935	135.228	148.751	163.626
- Plastic cleaning Cost	0	185.652	235.224	275.800	360.146	330.160	363.176	399.494	439.444	483.388
- Direct labor cost	87.750	96.525	106.178	116.795	128.475	141.322	155.454	171.000	188.100	206.910
Total Direct Cost	4.305.128	4.560.734	5.406.736	6.342.071	7.388.413	8.073.443	8.800.787	9.768.866	10.745.752	11.820.328
Factory Overhead										
- Indirect Production Salary	75.855	81.441	91.785	101.963	111.039	122.165	134.382	147.820	162.602	178.862
- Welfare	7.586	8.344	9.178	10.196	11.106	12.217	13.438	14.782	16.260	17.886
- Electricity	22.886	25.174	27.692	30.461	33.507	36.858	40.543	44.598	49.057	53.963
- Oil & Gas	11.617	12.779	14.057	15.463	17.009	18.710	20.581	22.639	24.903	27.393
- Water	2.724	2.996	3.295	3.625	3.988	4.386	4.825	5.307	5.838	6.422
- Maintenance	128.859	141.745	155.919	171.511	188.663	207.529	228.282	251.110	276.221	303.843
- Others/Insurance	13.342	14.677	16.144	17.759	19.535	21.488	23.637	26.001	28.601	31.461
- Depreciation	483.683	483.683	483.683	483.683	483.683	483.683	483.683	483.683	483.683	483.683
Total Indirect Cost	746.551	773.838	801.753	833.560	868.548	907.035	949.370	995.939	1.047.164	1.103.512
Cost of Goods Manufacture	5.051.679	5.333.572	6.208.489	7.175.631	8.256.961	8.980.477	9.830.157	10.764.804	11.792.917	12.923.840
Beginning Work in Process	0	210.487	222.232	236.687	298.985	344.040	374.187	409.590	448.534	491.372
Ending Work in Process	210.487	222.232	236.687	298.985	344.040	374.187	409.590	448.534	491.372	538.493
Total Finished Good	4.841.192	5.321.826	6.172.034	7.135.334	8.211.905	8.950.331	9.794.754	10.725.861	11.750.079	12.876.718
Beginning Finished Good	0	403.433	443.485	514.336	594.611	684.325	745.861	816.229	893.822	979.173
Ending Finished Good	403.433	443.485	514.336	594.611	684.325	745.861	816.229	893.822	979.173	1.073.060
Cost of Good Sold	4.437.760	5.281.773	6.101.183	7.055.059	8.122.191	8.888.795	9.724.385	10.648.269	11.664.727	12.782.832

TABLE III.5 K.

Description	Income Statement Projection										
	1	2	3	4	5	6	7	8	9	10	
(RP 000)											
Sales											
Plastic Bag											
- 8 Micron	1,524,679	2,042,297	2,428,217	2,863,540	3,361,659	3,736,133	4,099,636	4,509,600	4,960,559	5,456,615	
- 5 Micron	2,746,062	3,678,330	4,373,402	5,157,463	6,054,601	6,711,046	7,383,753	8,122,128	8,934,341	9,827,775	
- 1 Micron	1,147,608	1,537,213	1,827,694	2,155,358	2,530,281	2,804,616	3,085,747	3,394,322	3,733,754	4,107,130	
Total Sales	5,418,349	7,257,839	8,629,310	10,176,367	11,946,541	13,251,795	14,569,136	16,026,050	17,628,655	19,391,520	
Cost Of Good Sold	4,437,760	5,281,773	6,101,183	7,055,059	8,122,191	8,898,795	9,724,385	10,648,269	11,664,727	12,782,832	
Gross Margin	980,589	1,976,066	2,528,127	3,121,308	3,824,350	4,353,000	4,844,751	5,377,781	5,963,928	6,608,689	
Operating Expenses											
- Sales Cost											
- Sales Dept. Salary	7,800	8,480	9,436	10,362	11,420	12,562	13,818	15,200	16,720	18,392	
- Bonus	1,170	1,287	1,416	1,557	1,713	1,884	2,073	2,280	2,508	2,759	
- Advertisement/Promotion, others	54,183	72,578	86,293	101,764	119,465	132,418	145,691	160,260	176,287	193,915	
Total sales cost	63,153	82,445	97,147	113,703	132,598	146,864	161,582	177,740	195,515	215,066	
- Finance & Adm. Cost											
- Maintenance	9,130	10,042	11,047	12,151	13,367	14,703	16,173	17,791	19,570	21,527	
- Office Staff Salary	47,450	52,195	57,415	63,156	69,472	76,419	84,061	92,467	101,713	111,885	
- Employee Welfare	4,745	5,220	5,741	6,316	6,947	7,642	8,406	9,247	10,171	11,188	
- Electricity	11,022	12,124	13,336	14,670	16,137	17,751	19,526	21,478	23,626	25,989	
- General & Adm. Expenses	18,400	19,800	21,780	23,958	26,354	28,989	31,888	35,077	38,585	42,443	
- Tax on Land & Building	1,023	1,125	1,238	1,361	1,497	1,647	1,812	1,993	2,192	2,412	
- Depreciation & Amortisation	97,577	97,577	97,577	97,577	97,577	61,059	61,059	61,059	61,059	61,059	
Total Finance & Adm. Cost	188,946	198,083	208,133	219,189	231,350	242,210	252,925	269,111	286,916	306,502	
Total Operating Cost	252,099	280,528	305,280	332,892	363,949	355,074	384,507	416,852	452,431	491,568	
Operational Profit	728,490	1,695,538	2,222,847	2,788,416	3,460,402	3,997,926	4,480,244	4,960,930	5,511,497	6,117,121	
- Other Income	0	0	0	0	0	0	443,820	761,317	1,121,948	1,530,657	
- Non-Operating Expenses											
- Interest on Investment Loan	988,610	988,610	878,764	627,689	209,230	0	0	0	0	0	
- Interest on Work. Capital Loan	221,831	221,831	147,867	73,944	0	0	0	0	0	0	
Total Non-Operating Expenses	1,210,441	1,210,441	1,026,632	701,632	209,230	0	0	0	0	0	
E. B. I. T	(481,951)	485,097	1,196,195	2,086,784	3,251,172	3,997,926	4,904,064	5,722,247	6,633,444	7,647,777	
Tax	0	(4,899)	412,668	724,374	1,131,910	1,393,274	1,710,422	1,996,786	2,315,706	2,670,722	
Net Profit	(481,951)	489,996	783,527	1,362,410	2,119,262	2,604,652	3,193,642	3,725,461	4,317,739	4,977,055	
Dividend	0	0	0	0	0	911,628	1,117,775	1,303,911	1,511,209	1,741,969	
Profit & Loss Accumulation	(481,951)	8,045	791,572	2,153,981	4,273,243	5,966,267	8,042,134	10,463,683	13,270,214	16,503,299	

TABEL III.5.L.

Cash Flow Projection

(Rp.000)

Description	0	1	2	3	4	5	6	7	8	9	10
Cash Inflow											
Sales		4.968.820	6.653.020	7.910.201	9.328.336	10.950.996	12.138.312	13.155.042	14.690.546	16.159.600	17.775.560
Accounts Receivable		0	451.329	604.820	719.109	848.031	995.545	1.103.483	1.214.095	1.335.504	1.469.055
Non-Operating Income		0	0	0	0	0	0	0	0	0	0
Working Capital Loan		853.197	0	0	0	0	0	443.820	761.317	1.121.948	1.530.657
Investment Loan		3.802.345	0	0	0	0	0	0	0	0	0
Own Capital :											
Investment		2.534.897	0	0	0	0	0	0	0	0	0
Working Capital		568.798	0	0	0	0	0	0	0	0	0
Total Cash Inflow	6.337.241	6.388.815	7.104.569	8.515.021	10.047.445	11.799.027	13.133.857	14.902.344	16.665.958	18.617.052	20.775.271
Cash Outflow											
Investment		5.821.653	0	0	0	0	0	0	0	0	0
I.D.C.		515.589	0	0	0	0	0	0	0	0	0
Cost of Good Sold		3.954.077	4.798.091	5.617.501	6.571.376	7.638.309	8.405.113	9.240.703	10.164.586	11.181.045	12.299.149
Inventory :											
Raw Material		350.640	64.474	72.979	83.423	92.607	62.418	68.660	75.526	83.079	91.387
Packaging		5.907	1.090	700	770	847	931	1.024	1.127	1.240	1.364
Work in Process		210.487	11.746	36.455	40.298	45.055	30.147	35.403	38.944	42.838	47.122
Finished Good		403.433	40.053	70.851	80.275	89.714	61.535	70.369	77.592	85.351	93.887
Operating Expenses											
Sales Expenses		63.153	82.443	97.147	113.703	132.398	146.864	161.582	177.740	195.515	215.066
Finance & Adm. Expenses		91.369	100.506	110.556	121.612	133.773	147.151	161.866	178.052	195.857	215.443
Non-Operating Expenses		1.210.441	1.210.441	1.026.652	701.632	209.230	0	0	0	0	0
Tax		0	(4.899)	412.668	734.374	1.131.910	1.393.274	1.710.422	1.996.786	2.315.706	2.670.722
Divident		0	0	0	0	0	911.628	1.117.775	1.303.911	1.511.209	1.741.969
Investment Loan Repayment		0	422.483	965.675	1.009.438	804.729	0	0	0	0	0
Working Capital Loan Repayment		0	284.399	284.399	284.399	0	0	0	0	0	0
Total Cash Outflow	6.337.241	6.289.506	7.010.829	8.695.582	10.331.321	10.239.033	11.159.062	12.567.804	14.014.265	15.611.839	17.376.108
Surplus/Defisit	0	99.309	93.720	(180.561)	(283.875)	1.559.994	1.974.796	2.334.540	2.651.692	3.005.213	3.399.163
Beginning Balance	0	0	99.309	193.028	12.467	(271.408)	1.288.586	3.263.382	5.597.972	8.249.614	11.254.827
Ending Balance	0	99.309	193.028	12.467	(271.408)	1.288.586	3.263.382	5.597.972	8.249.614	11.254.827	14.653.990
Deposit at Bank Pucra Subapura	0	0	0	0	0	0	2.610.705	4.478.337	6.599.691	9.003.862	11.723.192
Cash Actual							652.676	1.119.584	1.649.923	2.250.963	2.930.798

TABLE III. 5.M.

Balance Sheet Projection

Description	1	2	3	4	5	6	7	8	9	10
(RP 000)										
Assets										
Current Asset										
Cash Actual	99,309	193,028	12,467	(271,408)	1,288,586	652,676	1,119,584	1,649,923	2,250,965	2,930,798
Deposit at Bank Putera Sulapura	0	0	0	0	0	2,610,705	4,478,337	6,599,691	9,163,862	13,723,192
Account Receivable	651,529	604,820	719,109	868,031	995,545	1,103,483	1,214,095	1,335,504	1,469,055	1,615,960
Finished Good Inventory	403,433	443,485	514,336	594,611	684,725	745,861	816,229	893,822	979,173	1,073,060
Work In Process	210,487	222,232	258,687	298,985	344,040	374,187	409,590	448,534	491,372	538,493
Raw Material Inventory	350,640	415,114	488,093	571,516	624,183	686,602	755,262	830,788	913,867	1,005,254
Pack. Material Inventory	5,907	6,997	7,697	8,467	9,313	10,245	11,269	12,396	13,656	14,999
Total Current Asset	1,521,304	1,885,677	2,000,389	2,050,201	3,945,993	6,183,758	8,804,367	11,770,658	15,121,929	18,901,756
Fixed Asset										
Fixed Asset	5,726,653	5,726,653	5,726,653	5,726,653	5,726,653	5,726,653	5,726,653	5,726,653	5,726,653	5,726,653
Depreciation	520,201	1,040,401	1,560,602	2,080,802	2,601,003	3,084,685	3,568,368	4,052,050	4,535,733	5,019,415
Book Value	5,206,452	4,686,252	4,166,051	3,645,851	3,125,650	2,641,968	2,158,285	1,674,603	1,190,920	707,238
Other Asset										
Pre-Operating Expenses - I.D.C.	610,589	610,589	610,589	610,589	610,589	610,589	610,589	610,589	610,589	610,589
Amortization	61,059	122,118	183,177	244,236	305,294	366,353	427,412	488,471	549,530	610,589
Total Other Asset	549,530	488,471	427,412	366,353	305,294	244,236	183,177	122,118	61,059	0
Total Asset	7,277,286	7,060,400	6,593,853	6,062,405	7,376,938	9,069,961	11,145,828	13,567,378	16,373,908	19,608,994
Liabilities										
Current Liabilities										
Trade Payable	0	0	0	0	0	0	0	0	0	0
Others Payable	0	0	0	0	0	0	0	0	0	0
Working Capital Loan	853,197	568,798	284,399	0	0	0	0	0	0	0
Total Current Liabilities	853,197	568,798	284,399	0	0	0	0	0	0	0
Long Term Liabilities										
Others Long Term Loan	3,802,345	3,379,862	2,414,187	804,729	0	0	0	0	0	0
Investment Loan	3,802,345	3,379,862	2,414,187	804,729	0	0	0	0	0	0
Total Long Term Loan	7,604,690	6,759,724	4,828,374	1,609,458	0	0	0	0	0	0
Equity										
Capital	3,103,694	3,103,694	3,103,694	3,103,694	3,103,694	3,103,694	3,103,694	3,103,694	3,103,694	3,103,694
Dividend	0	0	0	0	0	911,628	1,117,775	1,303,911	1,511,209	1,741,969
Profit & Loss last year	0	(481,951)	8,045	791,572	2,153,981	4,273,243	5,966,267	8,042,134	10,463,683	13,270,214
Profit & Loss on year	(481,951)	489,996	783,527	1,362,409	2,119,262	2,604,652	3,193,642	3,725,461	4,317,739	4,977,055
Total Equity	2,621,744	3,111,740	3,895,267	5,257,676	7,376,938	9,069,961	11,145,828	13,567,378	16,373,908	19,608,994
Total Liabilities	7,277,286	7,060,400	6,593,853	6,062,405	7,376,938	9,069,961	11,145,828	13,567,378	16,373,908	19,608,994

TABEL III.5.O.

Break Even Point Projection

(Rp.000)

Description	1	2	3	4	5	6	7	8	9	10
Unit Sold (Kg)	1.639.440	1.996.380	2.157.840	2.313.360	2.468.880	2.487.780	2.488.320	2.488.320	2.488.320	2.488.320
Fixed Cost	1.462.540	1.486.070	1.744.600	1.758.898	1.705.088	1.748.348	1.651.109	1.652.321	1.646.189	1.631.634
Variable Cost	4.437.760	5.281.773	6.101.183	7.055.059	8.122.191	8.888.795	9.724.385	10.648.269	11.664.727	12.782.832
Sales	5.418.349	7.257.839	8.629.310	10.176.367	11.946.541	13.241.795	14.569.136	16.026.050	17.628.655	19.391.520
B.E.P. %	149	75	69	56	45	40	34	31	28	25
B.E.P. unit sold	2.445.209	1.501.347	1.489.074	1.303.669	1.100.751	999.197	848.029	764.535	686.837	614.347

TABEL U1.3.P.

Financial Ratio

Description	1	2	3	4	5	6	7	8	9	10
LIQUIDITY RATIO :										
Current Ratio :	1,78	3,32	7,03							
Quick Acid Ratio :	0,65	1,40	2,57							
LEVERAGE RATIO :										
Debt To Asset Ratio	0,64	0,56	0,41	0,13						
Debt To Equity Ratio	1,78	1,27	0,69	0,15						
Long Term Debt To Equity Ratio	1,45	1,09	0,62	0,15						
ACTIVITY RATIO :										
Total Asset Turn Over :	0,74	1,03	1,31	1,68	1,62	1,46	1,31	1,18	1,08	0,99
Working Cap. Turn Over :	8,11	5,51	5,03	4,96	3,03	2,14	1,65	1,36	1,17	1,03
PROFITABILITY RATIO :										
Opr. Prof. Margin :	13,44%	23,36%	25,76%	27,40%	28,97%	30,19%	30,61%	30,96%	31,26%	31,55%
Profit Margin :	8,89%	6,75%	9,08%	13,39%	17,74%	19,67%	21,92%	23,25%	24,49%	25,67%
R.O.I :	(0,066)	0,07	0,12	0,22	0,29	0,29	0,29	0,27	0,26	0,25
R.O.E :	(0,184)	0,16	0,20	0,26	0,29	0,29	0,29	0,27	0,26	0,25

APPENDIX II
SENSITIVITY ANALISYS
SALES DECREASE 2,5 %

Sensitivity Analysis (Sales Decrease 2.5%)

Income Statement Projection	1	2	3	4	5	6	7	8	9	10
Sales										
Plastic Bag										
8 Micron	1,534,679	2,042,297	2,428,217	2,863,546	3,361,659	3,726,133	4,099,636	4,509,600	4,960,559	5,456,615
- 5 Micron	2,746,062	3,678,330	4,373,402	5,157,463	6,054,601	6,711,046	7,383,753	8,122,128	8,934,341	9,827,775
- 1 Micron	1,147,608	1,537,213	1,827,690	2,155,358	2,530,281	2,804,616	3,085,747	3,394,322	3,733,754	4,107,130
Total Sales	5,282,890	7,076,394	8,413,577	9,921,957	11,647,878	12,910,750	14,204,908	15,625,399	17,187,938	18,906,732
Cost of Goods Sold	4,437,760	5,281,773	6,191,181	7,055,059	8,122,191	8,888,795	9,714,385	10,648,269	11,604,727	12,782,832
Gross Margin	845,131	1,794,620	2,312,394	2,866,899	3,525,687	4,021,955	4,480,523	4,977,130	5,523,211	6,123,901
Operating Expenses										
Sales Cost										
• Sales Dept. Salary	7,800	8,580	9,438	10,382	11,420	12,562	13,818	15,200	16,720	18,392
• Bonus	1,170	1,287	1,416	1,557	1,713	1,884	2,073	2,280	2,508	2,759
• Advertisement/Promotion, others	52,829	70,764	84,136	99,220	116,479	129,108	142,049	156,254	171,879	189,067
Total sales cost	61,799	80,631	94,989	111,159	129,612	143,554	157,940	173,734	191,107	210,218
- Finance & Adm. Cost										
• Maintenance	9,130	10,042	11,047	12,151	13,367	14,705	16,173	17,791	19,570	21,527
• Office Staff Salary	47,450	52,195	57,415	63,156	69,472	76,419	84,061	92,467	101,713	111,885
• Employee Welfare	4,745	5,220	5,741	6,316	6,947	7,642	8,406	9,247	10,171	11,188
• Electricity	11,022	12,124	13,336	14,670	16,137	17,751	19,526	21,478	23,626	25,989
• General & Adm. Expenses	18,000	19,800	21,780	23,958	26,354	28,989	31,888	35,077	38,585	42,443
• Tax on Land & Building	1,023	1,125	1,238	1,361	1,497	1,647	1,812	1,993	2,192	2,412
• Depreciation & Amortization	97,577	97,577	97,577	97,577	97,577	97,577	97,577	97,577	97,577	97,577
Total Finance & Adm. Cost	188,946	198,083	208,133	219,189	231,350	243,710	257,325	272,111	288,166	305,502
Total Operating Cost	250,745	278,714	303,123	330,348	360,962	351,763	380,865	412,845	448,024	486,730
Operational Profit	594,386	1,515,907	2,009,271	2,336,551	3,104,725	3,670,191	4,099,658	4,504,285	5,075,188	5,637,181
- Other Income	0	0	0	0	0	0	0	0	0	0
- Non-Operating Expenses										
• Interest on Investment Loan	988,610	988,610	878,764	627,689	209,230	0	0	0	0	0
• Interest on Work. Capital Loan	221,831	221,831	147,887	73,944	0	0	0	0	0	0
Total Non-Operating Expenses	1,210,441	1,210,441	1,026,652	701,632	209,230	0	0	0	0	0
E.B.I.T	(616,055)	305,466	982,619	1,834,919	2,955,495	3,670,191	4,429,629	5,184,493	6,025,126	6,960,874
Tax	0	(114,706)	337,917	636,221	1,028,423	1,278,567	1,544,370	1,808,572	2,102,794	2,430,306
Net Profit	(616,055)	420,172	644,703	1,198,697	1,927,072	2,391,624	2,885,259	3,375,920	3,922,332	4,530,568
Divident	0	0	0	0	0	837,069	1,009,841	1,181,572	1,372,816	1,585,699
Profit & Loss Accumulation	(616,055)	(193,883)	448,820	1,647,517	3,574,589	5,129,145	7,004,563	9,198,911	11,748,427	14,693,296

Sensitivity Analysis (Sales Decrease 2.5%)

Description	(Rp.000)										
	0	1	2	3	4	5	6	7	8	9	10
Cash Flow Projection											
Cash Inflow											
Sales	4,831,361	6,471,574	7,694,468	9,073,927	10,632,333	11,807,267	12,990,813	14,289,894	15,718,884	17,290,772	
Accounts Receivable	0	451,529	604,820	719,109	848,031	995,545	1,103,483	1,214,095	1,335,504	1,469,055	
Non-Operating Income	0	0	0	0	0	0	0	0	0	0	
Working Capital Loan	853,197	0	0	0	0	0	329,971	620,208	949,938	1,323,694	
Investment Loan	3,802,345	0	0	0	0	0	0	0	0	0	
Own Capital :											
-Investment	2,534,897	0	0	0	0	0	0	0	0	0	
-Working Capital	568,798	0	0	0	0	0	0	0	0	0	
Total Cash Inflow	6,337,241	6,253,350	6,923,103	8,299,288	9,793,036	11,500,363	12,802,812	14,424,267	16,124,197	18,004,327	20,083,520
Cash Outflow											
Investment	5,821,653	0	0	0	0	0	0	0	0	0	
I.D.C.	515,589	0	0	0	0	0	0	0	0	0	
Cost of Good Sold	3,954,077	4,798,091	5,617,501	6,571,376	7,638,509	8,405,113	9,240,703	10,164,586	11,181,045	12,299,149	
Inventory :											
Raw Material	350,640	64,474	72,979	83,423	92,667	102,667	112,418	122,860	133,979	145,887	
Packaging	5,907	1,090	700	770	847	931	1,024	1,127	1,240	1,364	
Work in Process	210,487	11,746	36,455	40,298	45,055	50,147	55,403	60,944	67,722	74,838	
Finished Good	403,433	40,053	70,851	80,275	89,714	99,153	108,603	118,172	127,871	137,700	
Operating Expenses	61,799	80,631	94,989	111,159	129,612	143,554	157,940	173,734	191,107	210,218	
Sales Expenses	91,369	100,506	110,556	121,612	133,773	147,151	161,866	178,052	195,857	215,443	
Finance & Adm. Expenses	1,210,441	1,210,441	1,026,652	701,632	209,230	0	0	0	0	0	
Non-Operating Expenses	0	(114,706)	337,917	636,221	1,028,423	1,278,567	1,544,370	1,808,572	2,102,794	2,430,306	
Tax	0	0	0	0	0	0	837,069	1,009,841	1,181,572	1,372,816	1,585,699
Dividend	0	0	0	0	0	0	0	0	0	0	
Investment Loan Repayment	0	422,483	965,675	1,609,458	804,729	0	0	0	0	0	
Working Capital Loan Repayment	0	284,399	284,399	284,399	284,399	0	0	0	0	0	
Total Cash Outflow	6,337,241	6,288,152	6,899,207	8,618,673	10,240,624	10,132,559	10,966,485	12,290,176	13,699,706	15,256,128	16,974,574
Surplus/Deficit	0	(34,795)	23,896	(319,385)	(447,588)	1,367,804	1,836,328	2,134,092	2,424,491	2,748,199	3,108,947
Beginning Balance	0	0	(34,795)	(10,900)	(330,285)	(777,872)	589,931	2,426,259	4,560,351	6,984,842	9,733,041
Ending Balance	0	(34,795)	(10,900)	(330,285)	(777,872)	589,931	2,426,259	4,560,351	6,984,842	9,733,041	12,841,987
Deposit at Bank Putera Sukapura	0	0	0	0	0	0	1,941,007	3,648,281	5,387,874	7,786,433	10,273,390
Cash Actual	0	0	0	0	0	0	485,252	912,070	1,396,968	1,946,608	2,568,397

Sensitivity Analysis (Sales Decrease 2.5%)

Balance Sheet Projection

(RP 000)

Description	1	2	3	4	5	6	7	8	9	10
Assets										
Current Asset										
Cash Actual	(34,795)	(10,900)	(330,285)	(777,872)	589,931	485,252	912,070	1,396,968	1,946,608	2,568,397
Deposit at Bank, Prater Sukapura	0	0	0	0	0	1,941,007	3,648,281	5,587,874	7,786,433	10,273,590
Accounts Receivable	451,529	604,820	719,109	848,031	995,545	1,103,483	1,214,095	1,335,504	1,469,055	1,615,960
Finished Good Inventory	403,433	443,485	514,336	594,611	684,325	745,861	816,229	893,822	979,173	1,073,060
Work In Process	210,487	222,232	258,687	298,985	344,040	374,187	409,590	448,534	491,372	538,493
Raw Material Inventory	350,640	415,114	488,093	571,516	624,183	686,602	755,262	830,788	913,867	1,005,254
Pack. Material Inventory	5,907	6,997	7,697	8,487	9,313	10,245	11,269	12,396	13,636	14,999
Total Current Asset	1,387,199	1,681,749	1,657,637	1,543,737	3,247,339	5,346,636	7,766,796	10,505,885	13,600,143	17,089,753
Fixed Asset										
Fixed Asset	5,726,653	5,726,653	5,726,653	5,726,653	5,726,653	5,726,653	5,726,653	5,726,653	5,726,653	5,726,653
Depreciation	520,201	1,040,401	1,560,602	2,080,802	2,601,003	3,084,685	3,568,368	4,052,050	4,535,733	5,019,415
Book Value	5,206,452	4,686,252	4,166,051	3,645,851	3,125,650	2,641,968	2,158,285	1,674,603	1,190,920	707,238
Other Asset										
Pre-Operating Expenses + I.D.C.	610,589	610,589	610,589	610,589	610,589	610,589	610,589	610,589	610,589	610,589
Amortisation	61,059	122,118	183,177	244,236	305,294	366,353	427,412	488,471	549,530	610,589
Total Other Asset	549,530	488,471	427,412	366,353	305,294	244,236	183,177	122,118	61,059	0
Total Asset	7,143,181	6,856,472	6,251,100	5,555,940	6,678,283	8,232,839	10,108,257	12,302,606	14,852,121	17,796,991
Liabilities										
Current Liabilities										
Trade Payable	0	0	0	0	0	0	0	0	0	0
Others Payable	0	0	0	0	0	0	0	0	0	0
Working Capital Loan	853,197	568,798	284,399	0	0	0	0	0	0	0
Total Current Liabilities	853,197	568,798	284,399	0	0	0	0	0	0	0
Long Term Liabilities										
Others Long Term Loan	0	0	0	0	0	0	0	0	0	0
Investment Loan	3,802,345	3,379,862	2,414,187	804,729	0	0	0	0	0	0
Total Long Term Loan	3,802,345	3,379,862	2,414,187	804,729	0	0	0	0	0	0
Equity										
Capital	3,103,694	3,103,694	3,103,694	3,103,694	3,103,694	3,103,694	3,103,694	3,103,694	3,103,694	3,103,694
Dividend	0	0	0	0	0	837,069	1,049,841	1,181,572	1,372,816	1,585,699
Profit & Loss last year	0	(616,055)	(195,883)	448,820	1,647,517	3,574,589	5,129,145	7,004,563	9,198,911	11,748,427
Profit & Loss on year	(616,055)	420,172	644,703	1,198,697	1,927,072	2,391,624	2,885,259	3,375,920	3,922,332	4,530,568
Total Equity	2,487,640	2,907,812	3,552,514	4,751,211	6,678,283	8,232,839	10,108,257	12,302,606	14,852,121	17,796,991
Total Liabilities	7,143,181	6,856,472	6,251,100	5,555,940	6,678,283	8,232,839	10,108,257	12,302,606	14,852,121	17,796,991

APPENDIX III
SENSITIVITY ANALISYS
COST INCREASE 2,5 %

Sensitivity Analysis (Cost Increase 2.5%)

Income Statement Projection	(RP 000)									
Description	1	2	3	4	5	6	7	8	9	10
Sales										
Plastic Bag										
- 8 Micron	1,524,679	2,042,297	2,428,217	2,863,546	3,361,659	3,726,133	4,099,636	4,509,600	4,960,559	5,456,615
- 5 Micron	2,746,062	3,678,330	4,373,402	5,157,463	6,034,601	6,711,046	7,383,753	8,122,128	8,934,341	9,827,775
- 1 Micron	1,147,608	1,537,213	1,827,690	2,155,338	2,530,281	2,894,816	3,085,747	3,394,322	3,733,754	4,107,130
Total Sales	5,418,349	7,257,839	8,629,310	10,176,367	11,946,541	13,241,795	14,569,136	16,026,050	17,628,655	19,391,520
Cost Of Good Sold	4,548,704	5,413,818	6,253,713	7,231,435	8,325,246	9,111,015	9,967,495	10,914,475	11,956,345	13,102,492
Gross Margin	869,646	1,844,022	2,375,597	2,944,931	3,621,295	4,130,780	4,601,642	5,111,575	5,672,310	6,289,118
Operating Expenses										
- Sales Cost										
- Sales Dept Salary	7,800	8,580	9,438	10,382	11,420	12,562	13,818	15,200	16,720	18,392
- Bonus	1,170	1,287	1,416	1,557	1,713	1,884	2,073	2,280	2,508	2,759
- Advertisement/Promotion, others	54,183	72,578	86,293	101,764	119,465	132,418	145,691	160,260	176,287	193,915
Total sales cost	64,732	84,507	99,575	116,345	135,913	150,536	165,622	182,184	200,402	220,443
- Finance & Adm. Cost										
- Maintenance	9,130	10,042	11,047	12,151	13,367	14,703	16,173	17,791	19,570	21,527
- Office Staff Salary	47,450	52,195	57,415	63,156	69,472	76,419	84,061	92,467	101,713	111,885
- Employee Welfare	4,745	5,220	5,741	6,316	6,947	7,642	8,406	9,247	10,177	11,188
- Electricity	11,022	12,124	13,336	14,670	16,137	17,751	19,526	21,478	23,626	25,989
- General & Adm. Expenses	18,000	19,800	21,780	23,938	26,354	28,989	31,888	35,077	38,585	42,443
- Tax on Land & Building	1,023	1,125	1,238	1,361	1,497	1,647	1,812	1,993	2,192	2,412
- Depreciation & Amortisation	97,577	97,577	97,577	97,577	97,577	97,577	97,577	97,577	97,577	97,577
Total Finance & Adm. Cost	193,669	203,035	213,337	224,669	237,134	251,415	268,498	288,089	309,357	332,415
Total Operating Cost	258,402	287,541	312,912	341,214	373,047	363,951	394,120	427,273	463,742	503,857
Operational Profit	611,244	1,556,481	2,062,685	2,663,717	3,248,248	3,766,829	4,207,522	4,694,302	5,208,568	5,785,261
Other Income	0	0	0	0	0	0	0	0	0	0
- Non-Operating Expenses										
- Interest on Investment Loan	988,610	988,610	878,764	627,689	209,230	0	0	0	0	0
- Interest on Work. Capital Loan	221,831	221,831	147,887	73,944	0	0	0	0	0	0
Total Non-Operating Expenses	1,210,441	1,210,441	1,026,652	701,632	209,230	0	0	0	0	0
E.B.I.T	(599,197)	346,040	1,036,033	1,902,085	3,039,018	3,766,829	4,701,781	5,517,468	6,426,833	7,440,023
Tax	0	(94,605)	356,612	659,730	1,057,656	1,312,590	1,639,623	1,925,124	2,243,392	2,598,008
Net Profit	(599,197)	400,645	679,422	1,242,355	1,981,362	2,454,239	3,062,158	3,592,373	4,183,462	4,842,015
Divident	0	0	0	0	0	859,054	1,471,755	1,257,331	1,464,205	1,694,705
Profit & Loss Accumulation	(599,197)	(158,552)	530,869	1,763,225	3,744,587	5,339,972	7,330,374	9,605,417	12,384,654	15,531,964

Sensitivity Analysis (Cost Increase 2.5%)

Description	(Rp.000)										
	0	1	2	3	4	5	6	7	8	9	10
Cash Flow Projection											
Cash Inflow											
Sales	4,966,820	6,653,020	7,910,201	9,328,336	10,950,996	12,138,312	13,355,042	14,690,546	16,159,600	17,775,560	
Accounts Receivable	0	451,529	604,820	719,109	848,031	995,545	1,103,483	1,214,095	1,335,504	1,469,055	
Non-Operating Income	0	0	0	0	0	0	494,259	833,196	1,218,265	1,654,763	
Working Capital Loan	853,197	0	0	0	0	0	0	0	0	0	
Investment Loan	3,802,345	0	0	0	0	0	0	0	0	0	
Own Capital :											
Investment	2,534,897	0	0	0	0	0	0	0	0	0	
-Working Capital	568,798	0	0	0	0	0	0	0	0	0	
Total Cash Inflow	6,337,241	6,368,815	7,104,549	8,515,021	10,047,445	11,799,027	13,133,857	14,952,783	16,733,836	18,713,370	20,899,377
Cash Outflow											
Investment	5,821,653	0	0	0	0	0	0	0	0	0	
I.D.C.	515,589	0	0	0	0	0	0	0	0	0	
Cost of Good Sold	3,954,077	4,798,091	5,617,501	6,571,376	7,638,509	8,405,113	9,240,703	10,164,586	11,181,045	12,299,149	
Inventory :											
Raw Material	350,640	64,474	72,979	83,423	52,667	62,418	68,660	75,526	83,079	91,387	
Packaging	5,807	1,090	700	770	847	931	1,024	1,127	1,240	1,364	
Work in Progress	210,487	11,746	36,455	40,298	45,055	30,147	35,403	38,944	42,838	47,122	
Finished Good	403,433	40,053	70,851	80,275	89,714	61,535	70,369	77,592	85,351	93,887	
Operating Expenses	64,732	84,507	99,575	116,545	135,913	150,536	165,622	182,184	200,402	220,443	
Sales Expenses	96,093	105,458	115,760	127,092	139,557	152,356	167,439	184,030	202,280	222,556	
Finance & Adm. Expense	1,210,441	1,210,441	1,026,652	701,632	209,230	0	0	0	0	0	
Non-Operating Expense	0	(94,605)	356,612	659,730	1,057,656	1,312,390	1,639,623	1,925,124	2,243,392	2,598,008	
Tax	0	0	0	0	0	0	859,054	1,071,755	1,257,331	1,464,205	
Divident	0	422,483	965,675	1,609,458	804,729	0	0	0	0	0	
Investment Loan Repayment	0	284,399	284,399	284,399	284,399	0	0	0	0	0	
Working Capital Loan Repayment	0	0	0	0	0	0	0	0	0	0	
Total Cash Outflow	6,337,241	6,295,809	6,928,136	8,647,157	10,274,998	10,173,878	11,034,480	12,460,598	13,906,444	15,503,831	17,268,420
Surplus/Deficit	0	93,006	176,413	(132,136)	(227,553)	1,625,149	2,099,377	2,492,185	2,831,392	3,209,538	
Beginning Balance	0	0	93,006	269,419	137,283	(90,270)	1,534,879	3,634,256	6,126,441	8,957,833	
Ending Balance	0	93,006	269,419	137,283	(90,270)	1,534,879	3,634,256	6,126,441	8,957,833	12,167,371	
Deposit at Bank Putera Subapora	0	0	0	0	0	0	2,907,404	4,901,153	7,166,266	9,733,897	
Cash Actual	0	0	0	0	0	0	726,851	1,235,288	1,791,567	2,433,474	

Sensitivity Analysis (Cost Increase 2.5%)

(RP,000)

Description	1	2	3	4	5	6	7	8	9	10
Balance Sheet Projection										
Asset										
Current Asset										
Cash Actual	93,006	269,419	137,283	(90,270)	1,534,879	726,851	1,225,288	1,791,567	2,433,474	3,159,666
Deposit at Bank Pteera Sukapura	0	0	0	0	0	2,907,404	4,901,153	7,166,266	9,733,897	12,638,663
Account Receivable	451,529	604,820	719,109	848,031	995,545	1,103,483	1,214,095	1,335,504	1,469,055	1,615,960
Finished Good Inventory	403,433	443,485	514,336	594,611	684,325	745,861	816,229	893,822	979,173	1,073,060
Work In Process	210,487	222,232	238,687	298,985	344,040	374,187	409,590	448,534	491,372	538,493
Raw Material Inventory	350,640	415,114	488,093	571,516	624,183	686,602	755,262	830,788	913,867	1,005,254
Prep. Material Inventory	5,907	6,997	7,697	8,467	9,313	10,245	11,269	12,396	13,636	14,999
Total Current Asset	1,515,001	1,962,068	2,125,205	2,231,339	4,192,286	6,554,632	9,332,886	12,478,877	16,034,473	20,046,095
Fixed Asset										
Fixed Asset	5,726,653	5,726,653	5,726,653	5,726,653	5,726,653	5,726,653	5,726,653	5,726,653	5,726,653	5,726,653
Depreciation	520,205	1,040,401	1,560,602	2,080,802	2,601,003	3,084,685	3,568,368	4,052,050	4,535,733	5,019,415
Book Value	5,206,452	4,686,252	4,166,051	3,645,851	3,125,650	2,641,968	2,158,285	1,674,603	1,190,920	707,238
Other Asset										
Pre-Opening Expenses + I.D.C.	610,589	610,589	610,589	610,589	610,589	610,589	610,589	610,589	610,589	610,589
Amortization	61,059	122,118	183,177	244,236	305,294	366,353	427,412	488,471	549,530	610,589
Total Other Asset	549,530	488,471	427,412	366,353	305,294	244,236	183,177	122,118	61,059	0
Total Asset	7,270,983	7,136,791	6,718,668	6,243,542	7,623,230	9,440,835	11,674,347	14,275,597	17,286,452	20,753,333
Liabilities										
Current Liabilities										
Trade Payable	0	0	0	0	0	0	0	0	0	0
Others Payable	0	0	0	0	0	0	0	0	0	0
Working Capital Loan	833,197	568,798	284,399	0	0	0	0	0	0	0
Total Current Liabilities	833,197	568,798	284,399	0	0	0	0	0	0	0
Long Term Liabilities										
Others Long Term Loan	3,802,345	3,379,862	2,414,187	804,729	0	0	0	0	0	0
Investment Loan	3,802,345	3,379,862	2,414,187	804,729	0	0	0	0	0	0
Total Long Term Loan	7,604,690	6,759,724	4,828,374	1,609,458	0	0	0	0	0	0
Equity										
Capital	3,103,694	3,103,694	3,103,694	3,103,694	3,103,694	3,103,694	3,103,694	3,103,694	3,103,694	3,103,694
Dividend	0	0	0	0	0	859,094	1,071,755	1,257,331	1,464,205	1,694,705
Profit & Loss last year	0	(599,197)	(158,532)	\$20,869	1,763,225	3,744,587	5,339,972	7,330,374	9,665,417	12,384,654
Profit & Loss on year	(599,197)	440,645	679,422	1,242,355	1,981,362	2,454,430	3,062,158	3,592,373	4,183,442	4,842,015
Total Equity	2,504,497	2,945,142	3,624,584	4,866,919	6,848,281	8,403,660	10,434,069	12,769,111	15,488,349	18,635,658
Total Liabilities	7,160,039	6,899,802	6,323,150	5,671,648	6,848,281	8,443,666	10,434,069	12,769,111	15,488,349	18,635,658

APPENDIX IV
SENSITIVITY ANALISYS
SALES DECREASE 5 %

Sensitivity Analysis (Sales Decrease 5%)										
Income Statement Projection										
Description	1	2	3	4	5	6	7	8	9	10
Sales										
Plastic Bag										
- 8 Micron	1,524,679	2,042,297	2,428,217	2,863,346	3,361,659	3,726,133	4,099,636	4,509,600	4,960,559	5,456,615
- 5 Micron	2,746,062	3,678,530	4,373,402	5,157,463	6,054,601	6,711,046	7,383,753	8,122,128	8,934,341	9,827,775
- 1 Micron	1,147,608	1,537,213	1,827,690	2,155,358	2,530,281	2,804,616	3,085,747	3,394,322	3,733,754	4,107,130
Total Sales	5,147,432	6,894,948	8,197,845	9,667,548	11,349,214	12,579,705	13,840,679	15,224,747	16,747,222	18,421,944
Cost Of Good Sold	4,437,760	5,281,773	6,101,183	7,055,059	8,122,191	8,888,795	9,724,385	10,648,269	11,664,727	12,782,832
Gross Margin	709,672	1,613,174	2,096,661	2,612,489	3,227,023	3,690,910	4,116,294	4,576,479	5,082,495	5,639,113
Operating Expenses										
- Sales Cost										
- Sales Dept. Salary	7,800	8,580	9,438	10,382	11,420	12,562	13,818	15,200	16,720	18,392
- Bonus	1,170	1,287	1,416	1,557	1,713	1,884	2,073	2,280	2,508	2,759
- Advertisement/Promotion, others	51,474	68,949	81,978	96,675	113,492	125,797	138,407	152,247	167,472	184,219
Total sales cost	60,444	78,816	92,832	108,615	126,625	140,243	154,298	169,727	186,700	205,370
Finance & Adm. Cost										
- Maintenance	9,130	10,042	11,047	12,151	13,367	14,703	16,173	17,791	19,570	21,527
- Office Staff Salary	47,450	52,195	57,415	63,156	69,472	76,419	84,061	92,467	101,713	111,885
- Employee Welfare	4,745	5,220	5,741	6,316	6,947	7,642	8,406	9,247	10,171	11,188
- Electricity	11,022	12,124	13,336	14,670	16,137	17,751	19,526	21,478	23,626	25,989
- General & Adm. Expenses	18,000	19,800	21,780	23,958	26,354	28,989	31,888	35,077	38,585	42,443
- Tax on Land & Building	1,023	1,125	1,238	1,361	1,497	1,647	1,812	1,993	2,192	2,412
- Depreciation & Amortization	97,577	97,577	97,577	97,577	97,577	97,577	97,577	97,577	97,577	97,577
Total Finance & Adm. Cost	188,946	198,083	208,133	219,189	231,350	248,210	222,925	239,111	256,916	276,502
Total Operating Cost	249,390	276,899	300,965	327,804	357,975	348,453	377,222	408,839	443,617	481,872
Operational Profit	460,282	1,336,275	1,793,696	2,284,686	2,869,048	3,342,457	3,739,072	4,167,640	4,638,878	5,157,240
Other Income										
- Non-Operating Expenses	0	0	0	0	0	0	216,123	479,098	777,929	1,116,731
- Interest on Investment Loan	988,610	988,610	878,764	627,689	209,230	0	0	0	0	0
- Interest on Work. Capital Loan	221,831	221,831	147,887	73,944	0	0	0	0	0	0
Total Non-Operating Expenses	1,210,441	1,210,441	1,026,652	701,632	209,230	0	0	0	0	0
Net Profit	(750,159)	125,834	769,044	1,583,053	2,659,818	3,342,457	3,555,195	4,646,738	5,416,808	6,273,971
Tax	0	(234,514)	263,165	548,069	924,936	1,163,860	1,378,318	1,620,358	1,889,883	2,189,890
Net Profit	(750,159)	350,348	505,879	1,034,985	1,734,882	2,178,597	2,376,877	3,026,380	3,526,925	4,084,081
Dividend	0	0	0	0	0	762,509	901,907	1,059,233	1,234,424	1,429,428
Profit & Loss Accumulation	(750,159)	(799,811)	109,068	1,141,052	3,875,924	4,292,022	5,966,992	7,834,130	10,236,640	12,881,293

Sensitivity Analysis (Sales Decrease 5%)

Description	(Rp. (K))										
	0	1	2	3	4	5	6	7	8	9	10
Cash Flow Projection											
Cash Inflow											
Sales	4,695,903	6,290,128	7,478,735	8,819,518	10,353,669	11,476,222	12,626,585	13,889,243	15,278,168	16,805,984	
Accounts Receivable	0	451,529	604,820	719,109	848,031	995,545	1,103,483	1,214,095	1,335,504	1,469,055	
Non-Operating Income	0	0	0	0	0	0	216,123	479,098	777,929	1,116,731	
Working Capital Loan	3,802,345	0	0	0	0	0	0	0	0	0	
Investment Loan	0	0	0	0	0	0	0	0	0	0	
Own Capital :	2,534,897	0	0	0	0	0	0	0	0	0	
- Investment	0	0	0	0	0	0	0	0	0	0	
- Working Capital	568,798	0	0	0	0	0	0	0	0	0	
Total Cash Inflow	6,337,241	6,117,897	6,741,657	8,083,555	9,338,627	11,201,700	13,946,190	15,582,436	17,391,601	19,391,769	
Cash Outflow											
Investment	5,821,653	0	0	0	0	0	0	0	0	0	
I. D. C.	515,589	0	0	0	0	0	0	0	0	0	
Cost of Good Sold	3,954,077	4,798,091	5,617,501	6,571,376	7,638,509	8,405,113	9,240,703	10,164,586	11,181,045	12,299,149	
Inventory :											
Raw Material	350,640	64,474	72,979	83,423	52,667	62,418	68,660	75,526	83,079	91,387	
Packaging	5,907	1,090	700	770	847	931	1,024	1,127	1,240	1,364	
Work in Process	210,487	11,746	36,455	40,298	45,055	30,147	35,403	38,944	42,838	47,122	
Finished Good	403,433	40,053	70,851	80,275	89,714	61,535	70,369	77,592	85,351	93,887	
Operating Expenses	60,464	78,816	92,832	108,615	126,625	140,243	154,298	169,727	186,700	205,370	
Sales Expenses	91,369	100,506	110,556	121,612	133,773	147,151	161,866	178,052	195,857	215,443	
Finance & Adm. Expenses	1,210,441	1,210,441	1,026,652	701,632	299,230	0	0	0	0	0	
Non-Operating Expenses	0	(224,514)	263,165	548,069	924,936	1,163,860	1,378,318	1,620,358	1,889,883	2,189,890	
Tax	0	0	0	0	0	0	762,509	901,907	1,234,424	1,479,428	
Divident	0	0	0	0	0	0	0	0	0	0	
Investment Loan Repayment	0	422,483	965,675	1,609,458	864,729	0	0	0	0	0	
Working Capital Loan Repayment	0	284,399	284,399	284,399	284,399	0	0	0	0	0	
Total Cash Outflow	6,337,241	6,286,797	6,787,585	8,541,764	10,149,927	10,076,086	12,012,547	13,385,146	14,900,417	16,573,039	
Surplus/Defisit	0	(168,900)	(45,928)	(458,209)	(611,300)	(1,175,614)	(1,697,860)	(1,933,043)	(2,197,290)	(2,491,184)	
Beginning Balance	0	0	(168,900)	(214,828)	(673,037)	(1,284,337)	(1,088,723)	(1,589,137)	(3,522,780)	(5,720,070)	
Ending Balance	0	(168,900)	(214,828)	(673,037)	(1,284,337)	(1,148,723)	(1,589,137)	(3,522,780)	(5,720,070)	(8,211,254)	
Deposit at Bank Putera Sukapura	0	0	0	0	0	0	2,818,224	4,576,056	6,569,003	8,823,987	
Cash Actual	0	0	0	0	0	0	704,556	1,144,014	1,642,251	2,205,997	

Sensitivity Analysis (Sales Decrease 5%)

Balance Sheet Projection (RP 000)

Description	1	2	3	4	5	6	7	8	9	10
Asset										
Current Asset										
Cash Actual	(168,900)	(214,828)	(673,037)	(1,284,337)	(1,068,723)	317,827	704,556	1,144,014	1,642,251	2,205,997
Deposit at Bank/Paren Subapara	0	0	0	0	0	1,271,310	2,818,224	4,576,056	6,569,003	8,823,987
Account Receivable	451,529	604,820	719,109	848,031	995,545	1,103,483	1,214,995	1,335,504	1,469,055	1,615,960
Finished Good Inventory	403,433	443,485	514,336	594,611	684,325	785,861	816,229	893,822	979,173	1,073,060
Work In Process	210,487	222,232	238,687	298,985	344,040	374,187	409,590	448,534	491,372	538,493
Raw Material Inventory	350,640	415,114	488,093	571,516	624,183	686,602	755,262	830,788	913,867	1,005,234
Pack. Material Inventory	5,907	6,997	7,697	8,467	9,313	10,245	11,260	12,396	13,636	14,999
Total Current Asset	1,253,095	1,477,821	1,314,885	1,037,272	2,548,684	4,509,514	6,739,225	9,241,113	12,078,336	15,277,750
Fixed Asset										
Fixed Asset	5,726,653	5,726,653	5,726,653	5,726,653	5,726,653	5,726,653	5,726,653	5,726,653	5,726,653	5,726,653
Depreciation	520,201	1,040,401	1,560,602	2,080,802	2,601,003	3,084,685	3,568,368	4,052,050	4,535,733	5,019,415
Book Value	5,206,452	4,686,252	4,166,051	3,645,851	3,125,650	2,641,968	2,158,285	1,674,603	1,190,920	707,238
Other Asset										
Pre-Operating Expenses - I.D.C.	610,589	610,589	610,589	610,589	610,589	610,589	610,589	610,589	610,589	610,589
Amortization	61,059	122,118	183,177	244,236	305,294	366,353	427,412	488,471	549,530	610,589
Total Other Asset	549,530	488,471	427,412	366,353	305,294	244,236	183,177	122,118	61,059	0
Total Asset	7,009,077	6,652,543	5,908,348	5,109,476	5,979,629	7,395,717	9,070,686	11,037,833	13,330,335	15,984,988
Liabilities										
Current Liabilities										
Trade Payable	0	0	0	0	0	0	0	0	0	0
Others Payable	0	0	0	0	0	0	0	0	0	0
Working Capital Loan	853,197	568,798	284,399	0	0	0	0	0	0	0
Total Current Liabilities	853,197	568,798	284,399	0	0	0	0	0	0	0
Long Term Liabilities										
Others Long Term Loan	3,802,345	3,379,862	2,414,187	804,729	0	0	0	0	0	0
Investment Loan	3,802,345	3,379,862	2,414,187	804,729	0	0	0	0	0	0
Total Long Term Loan	7,604,690	6,759,724	4,828,374	1,609,458	0	0	0	0	0	0
Equity										
Capital	3,103,694	3,103,694	3,103,694	3,103,694	3,103,694	3,103,694	3,103,694	3,103,694	3,103,694	3,103,694
Divident	0	0	0	0	0	762,599	901,907	1,059,233	1,234,424	1,429,428
Profit & Loss last year	0	(750,159)	(399,811)	106,068	1,141,052	2,875,934	4,292,022	5,966,992	7,934,139	10,226,640
Profit & Loss on year	(750,159)	350,348	505,879	1,034,985	1,734,982	2,178,597	2,576,877	3,026,380	3,526,925	4,084,081
Total Equity	2,353,536	2,703,883	3,209,762	4,244,747	5,979,729	7,395,717	9,070,686	11,037,833	13,330,335	15,984,988
Total Liabilities	7,009,077	6,652,543	5,908,348	5,049,476	5,979,629	7,395,717	9,070,686	11,037,833	13,330,335	15,984,988

APPENDIX V
SENSITIVITY ANALISYS
COST INCREASE 5 %

Sensitivity Analysis (Cost Increase 5%)

(RP 000)

Income Statement Projection	Sensitivity Analysis (Cost Increase 5%)									
	1	2	3	4	5	6	7	8	9	10
Sales										
Plastic Bag	1,324,679	2,102,297	2,428,217	2,803,546	3,361,659	3,726,133	4,099,636	4,509,600	4,960,559	5,456,615
- 5 Micron	2,746,082	3,678,330	4,373,402	5,157,463	6,054,601	6,711,046	7,343,753	8,122,128	8,934,341	9,827,715
- 1 Micron	1,147,608	1,537,213	1,827,690	2,155,358	2,530,281	2,804,616	3,085,747	3,394,322	3,733,754	4,107,130
Total Sales	5,418,349	7,257,639	8,629,310	10,116,367	11,946,541	13,241,795	14,509,136	16,026,050	17,628,655	19,391,520
Cost Of Good Sold	4,659,648	5,345,662	6,406,243	7,407,812	8,328,301	9,333,235	10,210,604	11,180,682	12,247,963	13,421,973
Gross Margin	758,702	1,911,978	2,223,067	2,708,555	3,618,241	3,908,560	4,338,532	4,845,368	5,380,691	5,969,547
Operating Expenses										
- Sales Cost										
Sales Dept. Salary	7,800	8,580	9,438	10,382	11,420	12,562	13,818	15,200	16,720	18,392
Bonus	1,170	1,287	1,416	1,557	1,713	1,884	2,073	2,280	2,508	2,759
Advertisement/Promotion, others	54,183	72,578	86,293	101,764	119,465	132,418	145,691	160,280	176,287	193,915
Total sales cost	65,130	86,568	102,004	119,388	139,228	154,207	169,661	186,628	205,290	225,819
- Finance & Adm. Cost										
Maintenance	9,130	10,042	11,047	12,151	13,367	14,703	16,173	17,791	19,570	21,527
Office Staff Salary	47,450	52,195	57,415	63,136	69,472	76,419	84,061	92,467	101,713	111,885
Employee Welfare	4,745	5,220	5,741	6,316	6,947	7,642	8,406	9,247	10,171	11,188
Electricity	11,022	12,124	13,336	14,670	16,137	17,751	19,526	21,478	23,626	25,989
General & Adm. Expenses	18,000	19,800	21,780	23,958	26,354	28,989	31,888	35,077	38,585	42,443
Tax on Land & Building	1,023	1,125	1,238	1,361	1,497	1,647	1,812	1,993	2,192	2,412
Depreciation & Amortization	97,577	97,577	97,577	97,577	97,577	97,577	97,577	97,577	97,577	97,577
Total Finance & Adm. Cost	198,593	217,987	238,540	260,148	282,918	306,820	331,971	358,401	386,262	415,527
Total Operating Cost	264,704	294,555	320,544	349,536	382,146	417,827	453,732	490,694	529,052	569,147
Operational Profit	493,997	1,417,423	1,902,523	2,419,018	3,036,045	3,555,732	3,954,800	4,407,674	4,905,639	5,433,401
- Other Income	0	0	0	0	0	0	544,608	905,075	1,314,583	1,778,868
- Non Operating Expenses										
Interest on Investment Loan	988,610	988,610	878,764	627,689	219,230	0	0	0	0	0
Interest on Work. Capital Loan	221,831	221,831	147,887	73,944	0	0	0	0	0	0
Total Non Operating Expenses	1,210,441	1,210,441	1,026,652	701,632	219,230	0	0	0	0	0
E.R.I.T	(716,444)	206,982	875,872	1,217,366	2,426,805	3,515,732	4,499,497	5,312,748	6,220,222	7,232,269
Tax	0	(184,311)	369,555	595,685	983,403	1,221,506	1,588,824	1,853,462	2,171,078	2,525,294
Net Profit	(716,444)	391,294	575,117	1,122,301	1,843,462	2,304,236	2,930,673	3,459,286	4,090,144	4,706,075
Dividend	0	0	0	0	0	896,479	1,025,736	1,210,750	1,417,201	1,647,441
Profit & Loss Accumulation	(716,444)	(325,150)	250,167	1,372,468	3,215,930	4,213,677	6,418,615	8,867,151	11,499,094	14,538,628

Sensitivity Analysis (Cost Increase 5%)											
Cash Flow Projection											
Description	0	1	2	3	4	5	6	7	8	9	10
	(R.p.000)										
Cash Inflow											
Sales	4,966,820	6,653,020	7,910,201	9,328,336	10,950,996	12,138,312	13,355,042	14,690,546	16,159,600	17,775,560	
Accounts Receivable	0	451,529	604,820	719,109	848,031	995,545	1,103,483	1,214,095	1,335,504	1,469,055	
Non-Operating Income	0	0	0	0	0	0	0	544,698	905,075	1,314,583	
Working Capital Loan	853,197	0	0	0	0	0	0	0	0	0	
Investment Loan	3,802,345	0	0	0	0	0	0	0	0	0	
Own Capital :											
- Investment	2,534,897	0	0	0	0	0	0	0	0	0	
- Working Capital	568,798	0	0	0	0	0	0	0	0	0	
Total Cash Inflow	6,337,241	6,388,815	7,104,549	8,515,021	10,047,445	11,799,027	13,133,857	15,003,222	16,809,688	18,809,688	21,023,483
Cash Outflow											
Investment	5,821,653	0	0	0	0	0	0	0	0	0	
I.D.C.	515,589	0	0	0	0	0	0	0	0	0	
Cost of Good Sold	3,934,077	4,798,091	5,617,501	6,571,376	7,638,509	8,405,113	9,240,703	10,164,586	11,181,045	12,299,149	
Inventory :											
Raw Material	350,640	64,474	72,979	83,423	92,667	102,418	112,660	123,402	134,646	146,390	
Packaging	5,907	1,090	700	770	847	931	1,024	1,127	1,240	1,364	
Work in Process	210,487	11,746	36,455	40,298	45,055	50,147	55,403	60,944	67,722	74,722	
Finished Good	403,433	40,653	70,851	80,275	89,714	99,153	108,603	118,062	127,521	136,980	
Operating Expenses	66,311	86,568	102,044	119,388	139,228	154,207	169,661	186,628	205,290	225,819	
Sales Expenses	100,810	110,410	120,963	132,572	145,341	157,561	173,012	190,008	208,703	229,268	
Finance & Adm. Expenses	1,210,441	1,210,441	1,210,441	1,210,441	1,210,441	1,210,441	1,210,441	1,210,441	1,210,441	1,210,441	
Non-Operating Expenses	0	(184,311)	300,555	595,085	983,403	1,231,506	1,568,824	1,853,462	2,171,078	2,525,294	
Tax	0	0	0	0	0	0	806,479	1,025,736	1,210,750	1,417,261	
Dividend	0	0	0	0	0	0	0	0	0	0	
Investment Loan Repayment	0	422,483	965,675	1,609,458	804,729	0	0	0	0	0	
Working Capital Loan Repayment	0	284,399	284,399	284,399	284,399	0	0	0	0	0	
Total Cash Outflow	6,337,241	6,302,111	6,845,443	8,598,733	10,218,676	10,108,723	10,909,899	12,353,392	13,798,622	15,395,824	17,160,731
Surplus/Deficit	0	86,704	259,106	(83,712)	(171,231)	1,690,304	2,223,959	2,649,830	3,011,092	3,413,863	3,802,753
Beginning Balance	0	0	86,704	345,810	262,098	90,867	1,781,171	4,005,130	6,654,960	9,066,052	13,079,915
Ending Balance	0	86,704	345,810	262,098	90,867	1,781,171	4,005,130	6,654,960	9,066,052	13,079,915	16,942,668
Deposit at Bank Pulera Sukapura	0	0	0	0	0	0	3,294,104	5,323,968	7,732,842	10,403,932	13,554,134
Cash Actual	0	0	0	0	0	0	801,026	1,330,992	1,933,210	2,615,983	3,388,534

Sensitivity Analysis (Cost Increase 5%)

Balance Sheet Projection	1	2	3	4	5	6	7	8	9	10	(RP 000)
Asset											
Current Asset											
Cash Actual	86,704	345,810	262,098	90,867	1,781,171	801,026	1,330,992	1,933,210	2,615,983	3,388,534	
Deposit at Bank Patern Sukapura	0	0	0	0	0	3,204,104	5,323,968	7,732,842	10,463,932	13,354,134	
Account Receivable	451,529	604,820	719,109	848,031	995,545	1,103,483	1,214,095	1,335,504	1,469,055	1,615,960	
Finished Good Inventory	403,433	443,485	514,336	594,611	684,325	745,861	816,229	893,822	979,173	1,073,060	
Work In Process	210,487	222,232	258,687	298,985	344,040	374,187	409,590	448,534	491,372	538,493	
Raw Material Inventory	350,640	415,114	488,093	571,516	624,183	686,602	755,262	830,788	913,867	1,005,254	
Prep. Material Inventory	5,907	6,997	7,697	8,467	9,313	10,245	11,269	12,396	13,636	14,999	
Total Current Asset	1,508,699	2,038,459	2,230,020	2,412,476	4,438,578	6,925,506	9,861,405	13,187,196	16,947,017	21,190,434	
Fixed Asset											
Fixed Asset	5,726,653	5,726,653	5,726,653	5,726,653	5,726,653	5,726,653	5,726,653	5,726,653	5,726,653	5,726,653	
Depreciation	520,201	1,640,401	1,560,602	2,080,802	2,601,003	3,084,685	3,568,368	4,052,050	4,535,733	5,019,415	
Book Value	5,206,452	4,086,252	4,166,051	3,645,851	3,125,650	2,641,968	2,158,285	1,674,603	1,190,920	707,238	
Other Asset											
Pre-Operating Expense + I.D.C.	610,589	610,589	610,589	610,589	610,589	610,589	610,589	610,589	610,589	610,589	
Amortization	61,059	122,118	183,177	244,236	305,294	366,353	427,412	488,471	549,530	610,589	
Total Other Asset	549,530	488,471	427,412	366,353	305,294	244,236	183,177	122,118	61,059	0	
Total Asset	7,264,681	7,213,181	6,843,483	6,424,680	7,869,523	9,811,709	12,202,866	14,983,816	18,198,996	21,897,671	
Liabilities											
Current Liabilities											
Trade Payable	0	0	0	0	0	0	0	0	0	0	
Others Payable	0	0	0	0	0	0	0	0	0	0	
Working Capital Loan	833,197	568,798	284,399	0	0	0	0	0	0	0	
Total Current Liabilities	833,197	568,798	284,399	0	0	0	0	0	0	0	
Long Term Liabilities											
Others Long Term Loan	0	0	0	0	0	0	0	0	0	0	
Investment Loan	3,802,345	3,379,862	2,414,187	804,729	0	0	0	0	0	0	
Total Long Term Loan	3,802,345	3,379,862	2,414,187	804,729	0	0	0	0	0	0	
Equity											
Capital	3,103,694	3,103,694	3,103,694	3,103,694	3,103,694	3,103,694	3,103,694	3,103,694	3,103,694	3,103,694	
Dividend	0	0	0	0	0	806,479	1,025,736	1,210,750	1,417,201	1,647,441	
Profit & Loss last year	0	(716,444)	(325,150)	250,167	1,372,468	3,215,930	4,713,677	6,618,615	8,867,151	11,499,094	
Profit & Loss on Year	(716,444)	391,294	575,317	1,122,301	1,843,462	2,304,226	2,930,673	3,459,286	4,049,144	4,706,975	
Total Equity	2,387,251	2,778,545	3,353,861	4,476,162	6,319,624	7,817,371	9,722,309	11,970,845	14,602,789	17,662,323	
Total Liabilities	7,042,793	6,727,205	6,052,437	5,280,891	6,319,624	7,817,371	9,722,309	11,970,845	14,602,789	17,662,323	

APPENDIX VI
SENSITIVITY ANALISYS
SALES DECREASE 7,5 %

Sensitivity Analysis (Sales Decrease 7.5%)

Income Statement Projection	(RP 000)									
Description	1	2	3	4	5	6	7	8	9	10
Sales										
Plastic Bag										
- 8 Micron	1,524,679	2,042,297	2,428,217	2,863,546	3,361,659	3,726,133	4,099,636	4,509,600	4,960,559	5,456,615
- 5 Micron	2,746,062	3,678,330	4,373,402	5,157,463	6,054,601	6,711,046	7,283,753	8,122,128	8,934,341	9,827,775
1 Micron	1,147,608	1,537,213	1,827,690	2,155,358	2,530,281	2,864,616	3,085,747	3,394,322	3,733,754	4,107,130
Total Sales	5,418,349	7,257,840	8,629,309	10,176,367	11,946,541	13,301,805	14,469,141	16,026,056	17,628,654	19,391,520
Cost Of Good Sold	4,437,760	5,281,773	6,101,183	7,055,059	8,122,191	8,888,795	9,724,385	10,648,269	11,664,727	12,782,832
Gross Margin	574,213	1,431,728	1,860,928	2,358,080	2,928,360	3,359,865	3,751,066	4,175,828	4,641,779	5,154,325
Operating Expenses										
- Sales Cost										
- Sales Dept. Salary	7,800	8,580	9,438	10,382	11,420	12,562	13,818	15,200	16,720	18,392
- Bonus	1,170	1,287	1,416	1,557	1,713	1,884	2,073	2,280	2,508	2,759
- Advertisement/Promotion, others	56,120	67,135	79,621	94,131	110,506	122,487	134,765	148,241	163,065	179,372
Total sales cost	59,090	77,002	90,675	106,070	123,638	136,933	150,655	165,721	182,293	200,522
- Finance & Adm. Cost										
- Maintenance	9,130	10,042	11,047	12,151	13,367	14,703	16,173	17,791	19,570	21,527
- Office Staff Salary	47,430	51,195	57,415	63,156	69,472	76,419	84,061	92,467	101,713	111,885
- Employee Welfare	4,745	5,220	5,741	6,316	6,947	7,642	8,406	9,247	10,171	11,188
- Electricity	11,022	12,124	13,336	14,670	16,137	17,751	19,526	21,478	23,626	25,989
- General & Adm. Expenses	18,000	19,800	21,780	23,938	26,354	28,989	31,888	35,077	38,585	42,443
- Tax on Land & Building	1,023	1,125	1,238	1,361	1,497	1,647	1,812	1,993	2,192	2,412
- Depreciation & Amortization	97,577	97,577	97,577	97,577	97,577	97,577	97,577	97,577	97,577	97,577
Total Finance & Adm. Cost	188,946	198,083	208,133	219,189	231,350	243,610	256,916	271,274	286,725	303,002
Total Operating Cost	348,036	375,085	398,808	425,259	454,989	484,543	514,571	545,801	578,020	611,524
Operational Profit	326,178	1,156,644	1,582,120	2,032,821	2,573,371	3,014,723	3,378,486	3,770,996	4,202,569	4,677,300
Other Income	0	0	0	0	0	0	0	0	0	0
- Non-Operating Expenses										
- Interest on Investment Loan	988,610	988,610	878,764	627,689	209,230	0	0	0	0	0
- Interest on Work. Capital Loan	221,831	221,831	147,887	73,944	0	0	0	0	0	0
Total Non-Operating Expenses	1,210,441	1,210,441	1,026,652	701,632	209,230	0	0	0	0	0
E.B.I.T	(884,263)	(53,797)	555,469	1,331,188	2,364,141	3,014,723	3,480,760	4,108,984	4,808,490	5,587,068
Tax	0	(334,321)	188,414	459,916	821,449	1,049,153	1,212,266	1,432,144	1,676,971	1,949,474
Net Profit	(884,263)	(870,118)	743,883	1,791,104	2,585,590	3,063,876	3,268,516	3,676,840	4,131,519	4,637,594
Dividend	0	0	0	0	0	0	0	0	0	0
Profit & Loss Accumulation	(884,263)	(870,118)	743,883	1,791,104	2,585,590	3,063,876	3,268,516	3,676,840	4,131,519	4,637,594

Sensitivity Analysis (Sales Decrease 7.5%)

Cash Flow Projection Description	(R.P.000)										
	0	1	2	3	4	5	6	7	8	9	10
Cash Inflow											
Sales	4,560,444	6,108,682	7,263,603	8,565,149	10,055,006	11,145,177	12,262,356	13,488,592	14,837,451	16,321,196	
Accounts Receivable	0	451,529	604,820	719,109	848,031	995,545	1,103,483	1,214,095	1,335,504	1,469,055	
Non-Operating Income	0	0	0	0	0	0	0	337,988	605,920	909,768	
Working Capital Loan	853,197	0	0	0	0	0	0	0	0	0	
Investment Loan	3,802,345	0	0	0	0	0	0	0	0	0	
Own Capital :											
-Investment	2,534,897	0	0	0	0	0	0	0	0	0	
-Working Capital	568,798	0	0	0	0	0	0	0	0	0	
Total Cash Inflow	6,337,241	5,982,439	6,560,211	7,867,823	9,284,218	10,903,036	12,140,723	13,468,113	15,040,675	16,778,876	18,700,018
Cash Outflow											
Investment	5,821,653	0	0	0	0	0	0	0	0	0	
J.D.C.	515,589	0	0	0	0	0	0	0	0	0	
Cost of Good Sold	3,954,077	4,798,091	5,617,501	6,571,376	7,638,509	8,405,113	9,240,703	10,164,586	11,181,045	12,299,149	
Inventory :											
Raw Material	350,640	64,474	72,979	83,423	92,667	102,418	112,669	123,428	134,692	146,461	
Packaging	5,907	1,080	760	770	847	931	1,024	1,127	1,240	1,364	
Work in Process	210,487	11,746	36,455	40,298	45,055	50,147	55,403	60,944	67,788	74,944	
Finished Good	403,433	40,053	70,851	80,275	89,714	99,153	108,603	118,167	127,846	137,649	
Operating Expenses	59,090	77,002	90,675	106,070	123,638	136,933	150,655	165,721	182,293	200,522	
Sales Expenses	91,369	100,506	110,556	121,612	133,773	147,151	161,866	178,032	195,857	215,443	
Finance & Adm. Expenses	1,210,441	1,210,441	1,026,652	701,632	299,230	0	0	0	0	0	
Non-Operating Expenses	0	0	0	0	0	0	0	0	0	0	
Tax	0	(334,321)	188,414	439,916	821,449	1,049,153	1,212,266	1,432,144	1,676,971	1,949,474	
Dividend	0	0	0	0	0	0	0	0	0	0	
Investment Loan Repayment	0	422,483	965,675	1,609,458	804,729	0	0	0	0	0	
Working Capital Loan Repayment	0	284,399	284,399	284,399	284,399	0	0	0	0	0	
Total Cash Outflow	6,337,241	6,285,442	6,675,963	8,464,856	10,056,230	9,919,612	10,581,330	11,734,919	14,544,706	16,171,505	
Surplus/Deficit	0	(303,004)	(115,752)	(597,033)	(775,012)	983,424	1,559,392	1,733,194	2,234,170	2,528,513	
Beginning Balance	0	0	0	(418,756)	(1,015,789)	(1,790,801)	(807,378)	752,015	2,485,209	4,455,297	6,689,467
Ending Balance	0	(303,004)	(418,756)	(1,015,789)	(1,790,801)	(807,378)	752,015	2,485,209	4,455,297	6,689,467	9,217,981
Deposit at Bank Patern Sukapura	0	0	0	0	0	0	601,612	1,988,167	3,564,238	5,351,574	7,374,385
Cash Actual	0	0	0	0	0	0	150,403	497,042	1,337,893	1,843,596	

Sensitivity Analysis (Sales Decrease 7.5%)

Balance Sheet Projection	1	2	3	4	5	6	7	8	9	10
Asset										
Current Asset										
Cash Actual	(303,094)	(418,756)	(1,015,789)	(1,799,801)	(807,378)	150,403	497,042	891,059	1,337,893	1,843,596
Deposit at Bank Paera Sukapura	0	0	0	0	0	671,612	1,988,167	3,564,238	5,351,574	7,374,385
Account Receivable	451,529	604,820	719,109	848,031	995,545	1,103,483	1,214,095	1,335,504	1,469,055	1,615,960
Finished Good Inventory	403,433	483,485	514,336	594,611	684,325	745,861	816,229	893,822	979,173	1,073,060
Work In Process	216,487	222,232	258,087	298,985	344,040	374,187	409,590	448,534	491,372	538,493
Raw Material Inventory	350,640	415,114	488,093	571,516	624,183	686,602	755,262	830,788	913,867	1,005,254
Prep. Material Inventory	5,907	6,997	7,697	8,467	9,313	10,245	11,269	12,396	13,636	14,999
Total Current Asset	1,118,991	1,273,893	972,133	530,808	1,850,039	3,672,391	5,991,654	7,976,341	10,556,569	13,463,747
Fixed Asset										
Fixed Asset	5,726,653	5,726,653	5,726,653	5,726,653	5,726,653	5,726,653	5,726,653	5,726,653	5,726,653	5,726,653
Depreciation	520,201	1,040,401	1,560,602	2,080,802	2,601,003	3,084,685	3,568,368	4,052,050	4,535,733	5,019,415
Book Value	5,206,452	4,686,252	4,166,051	3,645,851	3,125,650	2,641,968	2,158,285	1,674,603	1,190,920	707,238
Other Asset										
Pre-Opening Expenses + I.D.C.	610,589	610,589	610,589	610,589	610,589	610,589	610,589	610,589	610,589	610,589
Amortization	61,059	122,118	183,177	244,236	305,294	366,353	427,412	488,471	549,530	610,589
Total Other Asset	549,530	488,471	427,412	366,353	305,294	244,236	183,177	122,118	61,059	0
Total Asset	6,874,973	6,448,615	5,565,596	4,543,011	5,280,974	6,558,594	8,033,116	9,773,061	11,808,548	14,172,984
Liabilities										
Current Liabilities										
Trade Payable	0	0	0	0	0	0	0	0	0	0
Others Payable	0	0	0	0	0	0	0	0	0	0
Working Capital Loan	853,197	568,798	284,399	284,399	0	0	0	0	0	0
Total Current Liabilities	853,197	568,798	284,399	284,399	0	0	0	0	0	0
Long Term Liabilities										
Others Long Term Loan	0	0	0	0	0	0	0	0	0	0
Investment Loan	3,802,345	3,379,862	2,414,187	804,729	0	0	0	0	0	0
Total Long Term Loan	3,802,345	3,379,862	2,414,187	804,729	0	0	0	0	0	0
Equity										
Capital	3,103,694	3,103,694	3,103,694	3,103,694	3,103,694	3,103,694	3,103,694	3,103,694	3,103,694	3,103,694
Divident	0	0	0	0	0	687,949	793,973	936,894	1,096,031	1,273,158
Profit & Loss last year	0	(884,263)	(603,739)	(236,685)	634,588	2,177,280	3,454,900	4,929,421	6,669,367	8,704,854
Profit & Loss on year	(884,263)	280,524	367,055	871,272	1,542,692	1,965,570	2,268,494	2,676,840	3,131,518	3,637,594
Retain Equity	2,219,431	2,499,955	2,867,019	3,738,282	5,280,974	6,538,594	8,033,116	9,773,061	11,808,548	14,172,984
Total Liabilities	6,874,973	6,448,615	5,565,596	4,543,011	5,280,974	6,558,594	8,033,116	9,773,061	11,808,548	14,172,984

Sensitivity Analysis (Cost Increase 7.5%)

Balance Sheet Projection

Description	1	2	3	4	5	6	7	8	9	10	(Rp.000)
Asset											
Current Asset											
Cash Actual	80.401	422.201	386.913	272.005	2.027.464	875.201	1.436.696	2.074.854	2.798.492	3.617.401	
Deposit at Bank Putera Sukapura	0	0	0	0	0	3.509.803	5.746.793	8.299.417	11.193.968	14.469.605	
Account Receivable	451.529	609.820	719.109	868.031	995.545	1.103.483	1.214.995	1.335.504	1.469.055	1.615.960	
Finished Good Inventory	403.433	443.485	514.336	594.611	684.325	745.861	816.229	893.822	979.173	1.073.060	
Work In Process	210.487	222.232	258.687	298.985	344.040	374.187	409.590	448.534	491.372	538.493	
Raw Material Inventory	350.640	415.114	488.093	571.516	624.183	686.602	755.262	830.788	913.867	1.005.254	
Pack. Material Inventory	5.907	6.997	7.697	8.467	9.313	10.245	11.269	12.396	13.636	14.999	
Total Current Asset	1.502.396	2.114.849	2.374.835	2.593.614	4.684.871	7.296.380	10.389.924	13.895.315	17.859.561	22.334.773	
Fixed Asset											
Fixed Asset	5.726.653	5.726.653	5.726.653	5.726.653	5.726.653	5.726.653	5.726.653	5.726.653	5.726.653	5.726.653	
Depreciation	520.201	1.040.401	1.560.602	2.080.802	2.601.003	3.121.203	3.641.403	4.161.603	4.681.803	5.202.003	
Book Value	5.206.452	4.686.252	4.166.051	3.645.851	3.125.650	2.605.450	2.085.250	1.565.050	1.044.850	524.650	
Other Asset	610.589	610.589	610.589	610.589	610.589	610.589	610.589	610.589	610.589	610.589	
Pre-Operating Expenses + I.D.C.	61.059	122.118	183.177	244.236	305.294	366.353	427.412	488.471	549.530	610.589	
Amortisation	549.530	488.471	427.412	366.353	305.294	244.236	183.177	122.118	61.059	0	
Total Other Asset	7.258.378	7.289.572	6.968.298	6.605.818	6.243.437	5.882.056	5.518.675	5.161.293	4.814.914	4.478.533	
Total Asset	8.760.774	9.404.421	9.343.133	9.199.432	10.928.308	13.178.436	15.908.599	19.056.608	22.674.475	26.813.306	
Liabilities											
Current Liabilities											
Trade Payable	0	0	0	0	0	0	0	0	0	0	
Others Payable	0	0	0	0	0	0	0	0	0	0	
Working Capital Loan	853.197	568.798	284.399	0	0	0	0	0	0	0	
Total Current Liabilities	853.197	568.798	284.399	0	0	0	0	0	0	0	
Long Term Liabilities											
Other Long Term Loan	3.802.345	3.379.862	2.414.187	804.729	0	0	0	0	0	0	
Investment Loan	3.802.345	3.379.862	2.414.187	804.729	0	0	0	0	0	0	
Total Long Term Loan	7.604.690	6.759.724	4.828.374	1.609.458	0	0	0	0	0	0	
Equity	1.156.084	2.644.697	4.514.754	7.589.974	10.704.908	17.396.380	25.909.924	35.891.310	47.714.546	60.525.273	
Capital	3.103.694	3.103.694	3.103.694	3.103.694	3.103.694	3.103.694	3.103.694	3.103.694	3.103.694	3.103.694	
Divident	0	0	0	0	0	353.905	979.716	1.164.170	1.370.196	1.600.177	
Profit & Loss last year	0	(833.690)	(491.747)	(20.536)	981.711	2.087.273	4.087.382	5.906.855	8.068.884	10.613.535	
Profit & Loss on year	(833.690)	341.943	471.212	1.052.247	1.705.562	2.154.015	2.799.189	3.326.199	3.914.847	4.571.935	
Total Equity	2.270.004	2.611.947	3.081.159	4.085.405	5.790.968	7.191.076	9.010.549	11.172.579	13.717.229	16.688.987	
Total Liabilities	6.925.546	6.569.607	5.781.745	4.890.134	5.790.968	7.191.076	9.010.549	11.172.579	13.717.229	16.688.987	

APPENDIX VII
SENSITIVITY ANALISYS
COST INCREASE 7,5 %

Sensitivity Analysis (Cost Increase 7.5%)

Income Statement Projection	(RP,000)									
Description	1	2	3	4	5	6	7	8	9	10
Sales										
Plastic Bag	1,524,679	2,042,297	2,428,217	2,863,546	3,361,659	3,726,133	4,099,636	4,509,680	4,960,559	5,456,615
- 8 Micron	2,746,062	3,678,330	4,373,402	5,157,463	6,054,601	6,711,046	7,383,753	8,122,128	8,934,341	9,827,775
- 5 Micron	1,147,608	1,537,213	1,827,690	2,155,358	2,530,281	2,804,616	3,085,747	3,333,754	3,733,754	4,101,130
- 1 Micron	5,418,349	7,257,839	8,629,310	10,176,367	11,946,541	13,241,795	14,569,136	16,026,050	17,628,655	19,391,520
Total Sales	4,770,592	5,677,906	6,558,772	7,584,188	8,731,355	9,555,455	10,453,714	11,446,889	12,539,582	13,741,544
Cost Of Good Sold	647,758	1,579,933	2,070,538	2,592,178	3,215,186	3,686,340	4,115,422	4,579,161	5,089,073	5,649,976
Gross Margin	4,122,834	4,097,973	4,488,234	4,992,010	5,516,169	5,869,115	6,338,292	6,867,728	7,450,509	8,091,568
Operating Expenses										
Sales Cost										
• Sales Dept. Salary	7,800	8,580	9,438	10,382	11,420	12,562	13,818	15,200	16,720	18,392
• Bonus	1,170	1,287	1,416	1,557	1,713	1,889	2,073	2,280	2,508	2,759
• Advertisement/Promotion, others	54,183	72,578	86,293	101,764	119,465	132,418	145,691	160,260	176,287	193,915
Total sales cost	67,890	88,629	104,433	122,220	142,543	157,879	173,701	191,071	210,178	231,196
Finance & Adm. Cost										
• Maintenance	9,130	10,042	11,047	12,151	13,367	14,703	16,173	17,791	19,570	21,527
• Office Staff Salary	47,450	52,195	57,415	63,156	69,472	76,419	84,061	92,467	101,713	111,885
• Employee Welfare	4,745	5,220	5,741	6,316	6,947	7,642	8,406	9,247	10,171	11,188
• Electricity	11,022	12,124	13,326	14,630	16,137	17,751	19,526	21,478	23,626	25,989
• General & Adm. Expenses	18,000	19,800	21,780	23,958	26,354	28,989	31,888	35,077	38,585	42,443
• Tax on Land & Building	1,023	1,125	1,238	1,361	1,497	1,647	1,812	1,993	2,192	2,412
• Depreciation & Amortization	97,577	97,577	97,577	97,577	97,577	97,577	97,577	97,577	97,577	97,577
Total Finance & Adm. Cost	203,117	212,939	223,743	235,628	248,701	263,825	279,644	297,044	315,185	334,290
Total Operating Cost	271,007	301,568	328,176	357,859	391,245	418,704	448,115	486,363	528,436	578,436
Operational Profit	378,751	1,278,366	1,742,362	2,234,320	2,823,941	3,304,636	3,702,077	4,131,046	4,602,710	5,121,541
- Other Income	0	0	0	0	0	0	0	0	0	0
- Non-Operating Expenses										
• Interest on Investment Loan	988,610	988,610	878,764	627,689	209,230	0	0	0	0	0
• Interest on Work. Capital Loan	221,831	221,831	147,887	73,944	0	0	0	0	0	0
Total Non-Operating Expenses	1,210,441	1,210,441	1,026,652	701,633	209,230	0	0	0	0	0
E.R.T.	(833,690)	67,925	715,710	1,532,687	2,614,712	3,304,636	4,297,214	5,107,999	6,013,811	7,024,515
Tax	0	(274,018)	244,499	536,441	909,149	1,150,622	1,498,025	1,781,800	2,098,764	2,452,580
Net Profit	(833,690)	341,943	471,212	1,002,237	1,705,562	2,154,013	2,799,180	3,326,199	3,914,847	4,571,935
Dividend	0	0	0	0	0	753,905	979,716	1,164,170	1,370,196	1,600,177
Profit & Loss Accumulation	(833,690)	(491,747)	(20,536)	981,711	2,687,273	4,087,382	5,916,835	8,108,884	10,613,535	13,585,293

Sensitivity Analysis (Cost Increase 7.5%)

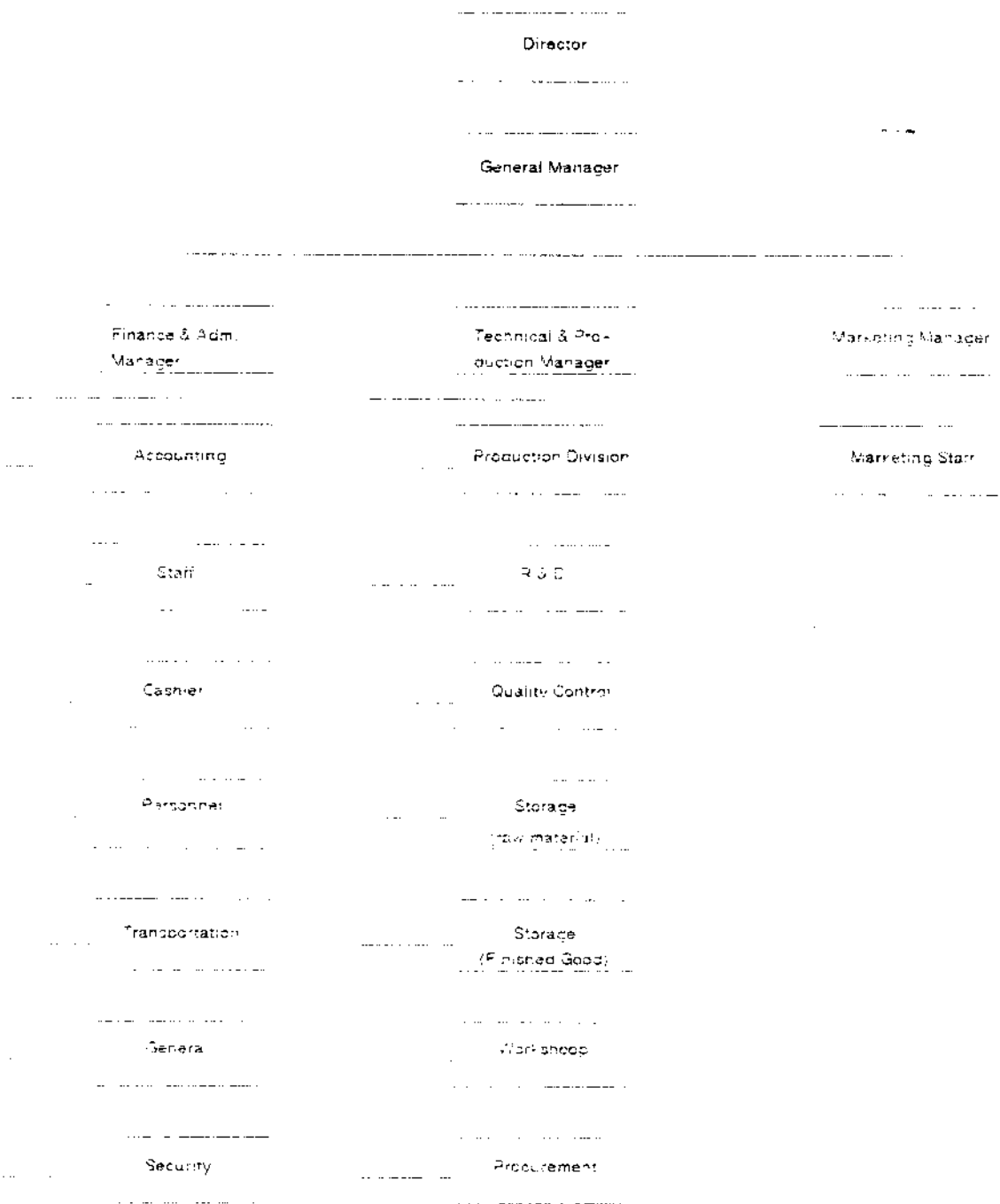
Description	(Rp.,000)										
	0	1	2	3	4	5	6	7	8	9	10
Cash Flow Projection											
Cash Inflow											
Sales	4,986,820	6,653,020	7,910,201	9,328,336	10,950,986	12,138,312	13,355,042	14,600,546	16,159,600	17,775,560	
Accounts Receivable	0	451,529	604,820	719,109	848,031	995,545	1,163,483	1,214,995	1,335,504	1,469,055	
Non-Operating Income	0	0	0	0	0	0	593,137	976,953	1,410,901	1,902,974	
Working Capital Loan	853,197	0	0	0	0	0	0	0	0	0	
Investment Loan	3,802,345	0	0	0	0	0	0	0	0	0	
Own Capital :											
Investment	2,534,897	0	0	0	0	0	0	0	0	0	
Working Capital	568,798	0	0	0	0	0	0	0	0	0	
Total Cash Inflow	6,337,241	6,388,815	7,104,549	8,515,021	10,047,445	11,799,027	13,133,857	15,053,661	16,881,594	18,906,005	21,147,589
Cash Outflow											
Investment	5,821,653	0	0	0	0	0	0	0	0	0	
L.P.C.	515,589	0	0	0	0	0	0	0	0	0	
Cost of Good Sold	3,954,077	4,798,091	5,617,501	6,571,376	7,638,509	8,405,113	9,240,703	10,164,586	11,181,045	12,299,149	
Inventory :											
Raw Material	350,640	64,474	72,979	83,423	92,667	62,418	68,660	75,526	83,079	91,387	
Packaging	5,907	1,090	700	770	847	931	1,024	1,127	1,240	1,364	
Work in Process	210,487	11,746	36,455	40,298	45,055	30,147	35,403	38,944	42,838	47,122	
Finished Good	403,433	40,053	70,851	80,275	89,714	61,535	70,369	77,592	85,351	93,887	
Operating Expenses											
Sales Expenses	67,890	88,629	104,433	122,230	142,543	151,879	173,701	191,071	210,178	231,196	
Finance & Adm. Expenses	105,540	115,362	126,166	138,051	151,125	163,766	178,585	195,986	215,126	236,181	
Non-Operating Expenses	1,210,441	1,210,441	1,026,652	701,632	209,230	0	0	0	0	0	
Tax	0	(274,018)	244,499	530,441	909,149	1,150,622	1,498,025	1,781,800	2,098,764	2,452,580	
Divident	0	0	0	0	0	0	753,905	979,716	1,370,196	1,600,177	
Investment Loan Repayment	0	422,483	965,675	1,609,458	804,729	0	0	0	0	0	
Working Capital Loan Repayment	0	284,399	284,399	284,399	284,399	0	0	0	0	0	
Total Cash Outflow	6,337,241	6,308,414	6,762,749	8,550,308	10,162,354	10,043,568	10,785,317	12,246,186	13,690,801	15,287,817	17,053,042
Surplus/Deficit	0	80,401	341,799	(55,287)	(114,909)	1,755,459	2,348,540	2,807,475	3,191,793	3,618,188	
Beginning Balance	0	0	80,401	422,201	386,913	272,005	2,027,464	4,376,084	7,183,479	10,374,271	
Ending Balance	0	80,401	422,201	386,913	272,005	2,027,464	4,376,084	7,183,479	10,374,271	13,992,459	
Deposit at Bank Puera Sukapura	0	0	0	0	0	0	3,500,803	5,746,783	8,299,417	11,193,968	
Cash Actual	0	0	0	0	0	0	875,201	1,436,696	2,074,854	2,798,492	

APPENDIX VIII
ECONOMIC INDICATOR

Major Economic Indicator for Indonesia	1989	1990	1991	1992 (b)
Labor Force (million)	175,8	179,3	182,8	186,4
GDP Based on 1983 Constant Price (Rp. T)	107,4	115,3	123,1	130,6
Growth in GDP	7,4	7,3	6,8	6
Money Supply (trillion Rp.)				
M1	--	23,82	27,99	30,15
M2	--	84,63	101,64	118,2
Banking Credit	63,6	97,7	113,6	116,6
Inflation Rate Based on Consumer Price	6	9,5	9,5	7-8
Interest Rate on Time Deposit				
- State Bank	20	19-20	18-19	18-19
- National Private Bank	20-21	18-21	18-21	18-21
- Foreign Private Bank	16-20,5	16,5-20,1	15,5-20	15,5-20

APPENDIX IX
ORGANISATION STRUCTURE

ORGANISATION CHART



**APPENDIX X
FLOW OF PRODUCTION**

General Process Information

Flow Chart

