

BUSINESS POTENTIAL OF GARAM MANIS COMPANY IN THE ASPECTS OF MARKET,  
TECHNOLOGY AND FINANCIAL

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Abstract-Garam Manis Company is a start-up company that created the technology that can produce industrial salt with standards industry by using electrolysis, evaporation and geomembrane. In relation to the lack of technology that could produce the industrial salt in Indonesia and the high demand for industrial salt in Indonesia, 1.8 million tons / year, there is one innovation generated by Start-up Company that is Garam Manis Company. The new technologies using electrolysis, evaporation, and geomembrane that can produce quality crystal salt products meet the quality standards of industrial salt. In starting a new business or expand a business which has been running for the first time to do an analysis of the potential of the business. The amount of funds expended to build a business and a high probability of failing to make the need for research to determine the potential to make profit from the new venture in the long run. The final project will talk about potential business of Garam Manis Company in the aspects of market, technology and finance. Then the ended by conclusions and recommendation for Garam Manis Company. As a conclusion, Garam Manis Company have potential business because based on the analysis of market size, Garam Manis Company has a vast potential market that is a total of 3,015 of textiles, washing and water treatment company in Bandung. when seen from the analysis of the financial aspects of NPV for Garam Manis Company is positive ie  $2185594509 > 0$ , then by using the assumption of interest is 20% and 21%, IRR calculation results for Garam Manis Company is 20.0017% and that means  $IRR > MARR (20\%)$ , so that this project can be said to be potentially. Payback Period is based on the calculation that the author has done, Garam Manis Company will payback in 3 years, 4 months, 24 days. From the analysis that has been done, it can be concluded that the business is being run by Garam Manis Company is potentially.

Keyword: Industrial salt, imitability, complementary assets, textiles, water treatment

## Introduction

Indonesia is the country with the fourth longest coastline in the world and is known for its abundant wealth, no exception the seawater itself. As we know the sea water has many benefits and can be processed to meet human needs, one of which is salt. Salt is an ingredient to complement food needs and is a source of electrolytes to the human body. Salt not only as a complementary food needs but also to complement the needs of raw materials production process several industries. But salt being used to meet the needs of food and salt used for raw material production process needs an industry, is different. The making of salt has become a livelihood for over 70,000 residents of Indonesia who live in coastal areas. The need for salt in Indonesia reached 3.2 million tons per year, 1.8 million for the needs of industrial salt and 1.4 million tons for the needs of iodine salt (Rismana, 2013), as shown in figure 1.1 below. However, Indonesia still relies on imports salt to meet the national salt needs until now, especially for industrial salt. As shown in figure 1.2 about the supply of salt in Indonesia, Percentage "the national production of iodine salt in 2012 is reached 2.8 tons or about 1.4 million tons of surplus", Kementerian Kelautan dan Perikanan.



Figure 1.1 Demand of salt in 2012



Figure 1.2 Supply of salt in 2012

From the problems that occurred in the salt industry in Indonesia at this time, there is one innovation generated by Start-up Company that Garam Manis Company using a new technology. The new technology uses electrolysis and evaporation method that can produce quality crystal salt products meet the quality standards of industrial salt. Quality increases with decreased levels of calcium (Ca) and Magnesium (Mg) from 300 ppm to a maximum of 100 ppm (according to Industrial grade). Based on the results of tests conducted in the salt content of 'Kementrian Kelautan dan Perikanan Bandung', the resulting crystal salt contains NaCl at 99.5%. That it meets the quality of the salt industry salt quality and can be used in several industries such as textiles, pharmaceuticals, water treatment, and washing. In addition to improving the quality of salt production, using technology can increase the quantity of salt produced by an average of 50% of 60-70 tons / ha / year to 90-100 tons / ha / year. By using these technologies the local salt can compete with imported salt, given the need for salt industry in Indonesia is very large. With this can reduce dependence on imported salt industry.

In starting a new business or expand existing business the first thing to do is analyze the potential of the business. The amount of funds expended to build a business and the high possibility of failing to make the need for research to determine the potential and capability that makes a profit from the new venture in the long run. The authors wants to analyze how the potential business of Garam Manis Company in the aspects of market and technology.

#### Theoretical Foundation

##### The Teece Model

David Teece clarified that two factors – imitability and complementary assets – will have a strong influence in determining who will ultimately profit from an innovation. Imitability refers to how easily competitors can copy or duplicate the technology or process underpinning the innovation. There are many examples of barriers a company could use to protect itself from imitation, including intellectual property rights, complex internal routines or tacit knowledge. Complementary assets, therefore, are equally important. They include any activity that gravitates around the core

innovation such as distribution channels, reputation, marketing capabilities, strategic alliances, customer relationships, licensing agreements, among others. (Teece, 2006:173)

#### Marketing mix

The set of tactical marketing tools product, price, place, and promotion that the firm blends to produce the response it wants in the target market.

- ✓ Product means the goods-and-services combination the company offers to the target market.
- ✓ Price is the amount of money customers must pay to obtain the product.
- ✓ Place includes company activities that make the product available to target consumers.
- ✓ Promotion means activities that communicate the merits of the product and persuade target customers to buy it. (Kotler & Armstrong, 2011: 51)

#### Customer-Driven marketing strategy

Most companies have moved away from mass marketing and toward target marketing: identifying market segments, selecting one or more of them, and developing products and marketing programs tailored to each. Instead of scattering their marketing efforts (the "shotgun" approaches), firms are focusing on the buyers who have greater interest in the values they create well (the "rifle" approach).

The four major steps in designing a customer-driven marketing strategy. In the first two steps, the company selects the customers that it will serve. Market segmentation involves dividing a market into smaller segments of buyers with distinct needs, characteristics, or behaviors that might require separate marketing strategies or mixes. The company identifies different ways to segment the market and develops profiles of the resulting market segments. Market targeting (or targeting) consists of evaluating each market segment's attractiveness and selecting one or more market segments to enter. In the final two steps, the company decides on a value proposition—how it will create value for target customers. Differentiation involves actually differentiating the firm's market offering to create superior customer value. Positioning consists of arranging for a market offering to occupy a clear, distinctive, and desirable place relative to competing products in the minds of target consumers. (Kotler & Armstrong, 2011: 188)

#### Analysis SWOT

This analysis is a method to explore aspects of the conditions contained in an area planned as well as to elaborate a variety of potential and challenges that will be faced in the development of the region. SWOT itself is short for assessment of variables, namely:

- S is STRENGTHS, which means the potential and strength development.
- W is WEAKNESS, which means problems and development challenges being faced.
- O is OPPORTUNITIES, which means that development opportunities.
- T is THREATS, which is an influential external factor in development.

#### SWOT Matrix

The SWOT matrix is essentially combined the opportunities, threats, strengths, and weaknesses in a matrix. Thus the matrix consists of four quadrants, where each quadrant contains the respective strategies. For more details can be seen in the following diagram: (Puspita, 2010)

#### Cash flow

An accounting statement called the "statement of cash flows", which shows the amount of cash generated and used by a company in a given period. It is calculated by adding noncash charges (such as depreciation) to net income after taxes. Cash flow can be attributed to a specific project, or to a business as a whole. Cash flow can be used as an indication of a company's financial strength. (Investopedia, 2014)

### Internal Rate of Return (IRR)

Internal rate of return (IRR) is the interest rate at which the net present value of all the cash flows (both positive and negative) from a project or investment equal zero.

Internal rate of return is used to evaluate the attractiveness of a project or investment. If the IRR of a new project exceeds a company's required rate of return, that project is desirable. If IRR falls below the required rate of return, the project should be rejected. (Gitman & Zutter, 2012:401)

The formula for IRR is:

$$\begin{aligned} \$0 &= \sum_{t=1}^n \frac{CF_t}{(1 + IRR)^t} - CF_0 \\ \sum_{t=1}^n \frac{CF_t}{(1 + IRR)^t} &= CF_0 \end{aligned}$$

### Net Present Value

Net Present Value (NPV) is a formula used to determine the present value of an investment by the discounted sum of all cash flows received from the project. The formula for the discounted sum of all cash flows can be rewritten as

$$NPV = \sum_{t=1}^n \frac{CF_t}{(1 + r)^t} - C_0$$

When a company or investor takes on a project or investment, it is important to calculate an estimate of how profitable the project or investment will be. In the formula, the  $-C_0$  is the initial investment, which is a negative cash flow showing that money is going out as opposed to coming in. Considering that the money going out is subtracted from the discounted sum of cash flows coming in, the net present value would need to be positive in order to be considered a valuable investment. (Gitman & Zutter, 2012:397)

### Payback Period

Payback periods are commonly used to evaluate proposed investments. The payback period is the amount of time required for the firm to recover its initial investment in a project, as calculated from cash inflows. In the case of an annuity, the payback period can be found by dividing the initial investment by annual cash inflow. For a mixed stream of cash inflows, the yearly cash inflows must be accumulated until the investment is recovered. Although popular, the payback period is generally viewed as an unsophisticated capital budgeting technique, because it does not explicitly consider the time value of money. (Gitman & Zutter, 2012:393)

### Data analysis

#### Potential Market

Potential consumer owned by "Garam Manis Company" is a water treatment company that is willing to buy the salt crystals produced by the "Garam Manis Company" 8 tones per week and other potential customers is a textile company that is interested to buy salt with "Garam Manis Company" as much as 300-400kg / month.

#### Market size

Based on BPS data obtained, the target market of Garam Manis Company is 23 034 of the total number of large and medium industries which use the industrial salt as one of the raw materials of their production. Potential market of Garam Manis Company in the capture of a number of target markets Garam Manis Company, namely textile, water treatment, and washing company. Total number of Textile, Washing and Water Treatment Company obtained from the BPS is 3,015 and this means the potential market of Garam Manis Company is quite large.

## Customer-driven marketing strategy

### Segmentation

Based on needs and benefits, market segmentation of salt crystals is an industry that uses salt as raw material production in Bandung.

### Target Market

The target market of the salt crystals is:

- The textile industry,
- The water treatment industry,
- The washing industry, and
- The pharmaceutical industry.

### Positioning

As a major national salt company in supplying the needs of salt for various industries in Indonesia, which has a quality that meets industry standards in Indonesia so that the salt industry that requires salt industry in Indonesia do not need to import salt from other countries.

### SWOT Analysis

#### Strength

- Human resources have a great ability.
- Have a qualified technology
- Sources of raw materials for the manufacture of salt easily accessible and close to the location.
- Having a strong network with multiple industries.
- Have a quality salt that exceeds the quality of imported salt.
- The sale price is cheaper, so it can compete with foreign products.

#### Weakness

- Not stable financial condition.
- At start-up company employee loyalty tends to be less, it could lead to turnover.
- The division of tasks which still overlap.

#### Opportunity

- Has the technology with a new method that has never existed in Indonesia.
- The high demand for the salt industry in Indonesia.
- There is no local salt industry standards salt.
- Broad market segment.

#### Threats

- The absence of a patent on the technology used, thus making the technology easy to imitate.
- The climate in Indonesia is increasingly uncertain, and it affects the production time becomes erratic.

SWOT matrix that has been created by the author as can be seen in Appendix A.

### Marketing mix

#### Product

Products offered by "Garam Manis Company" is a crystal salt, the clean salt with NaCl content of 99.5%, which could meet the needs of industries that use salt as a raw material for production. Crystal salt is types of industrial salt, the salt that is used in the textile industry, washing, water treatment, drilling and pharmaceuticals.

#### Price

Determining the price of salt crystals was carried out by the "Garam Manis Company". Price is one factor that is very important for a company in determining a marketing strategy that will be used. Errors in pricing of products sold and predict the response of competitors and consumers would be bad for the company itself. The price offered by the "Garam Manis Company" is Rp. 900/kg.

#### Place

Production and warehousing area located in Desa Parean Girang Kec. Kandanghaur, Kab. Indramayu. The production area has an area of 40 ha (40,000 m<sup>2</sup>). Desa Parean Girang is the northern coastal areas of Indonesia. This facilitates Garam Manis Company to produce salt, because salt is made from sea water.

#### Promotion

To promote the products, "Garam Manis Company" will implement promotional activities "direct selling", where "Garam Manis Company" directly offers these salt crystal products to major industries in Indonesia.

#### Aspects of Technology

To produce a quality product then takes appropriate technology and quality as well. Currently Indonesia does not have to be able to produce a salt solution whose quality meets industry standards, so many companies selling salt (salt distributors) and companies that use raw materials purchase salt for salt production industry as imports from other countries. Garam Manis Company using Electrolysis, Evaporation and geomembrane technology to produce salt. Technology Electrolysis, Evaporation and geomembrane can produce salt crystals that are of good quality and meet the quality standards salt industry in Indonesia. So salt offered by "Garam Manis Company" can compete with other companies that sell industrial salt.

#### Electrolysis

Electrolysis works to reduce the levels of impurities (magnesium and calcium) present in sea water, so it can produce clean salt like crystals. Garam Manis Company with the electrolysis can improve the quality of salt produced. This is evidenced by decreasing levels of impurities (magnesium and calcium) of 300 ppm (parts per million) to 100 ppm (parts per million). The smaller levels of magnesium and calcium the better the quality of salt produced. Levels of magnesium and calcium to meet the industry standard is 100 ppm (parts per million).

#### Evaporation

Evaporation serves to increase the quantity of salt produced, by seeking contact between water and air as much as possible by spraying (spray) the sea water into "kolam peminihan" (spray pond). If the salt produced in the traditional way produces 60-70 tones / ha / year, then using the spray evaporation, the salt produced by Garam Manis Company can be increased up to 90-100 tones / ha / year.

#### Geomembrane

Geomembrane is used to coat the land Stalinization. If the salt is traditionally produced when the harvest of salt produced is mixed with the soil so as to make the resulting salt becomes not clean, while using the geomembrane to prevent direct contact between crystalline salt and ground so that the resulting salt produced by Garam Manis Company was clean.

#### Quantity

The salt produced by Garam Manis Company with electrolysis, evaporation and geomembrane technology is increased from 60-70 tones / ha / year, the resulting salt increased 50% from the previous harvest salt using traditional means and traditional windmills.

#### Quality

By using technology electrolysis, evaporation and Geomembrane the quality industrial salt produced by Garam Manis Company meet industry standards in Indonesia, namely salt with NaCl concentration of 99.5% (based on the Kementrian Kelautan dan Peikanan Bandung).

Methodology to make salt with Electrolysis, Evaporation, and Geomembrane technology.

Process flow begins with the entry of sea water into salt swath past the electrolysis cell at the bottom of the wheel. Through movement windmill electric energy obtained from the transformation of the energy of motion / wind turbine use. Electrical energy is then supplied to the batteries for the electrolysis process. In this electrolytic process to form chemical compounds required to separate the ions OH-(from water) which is then spray it into the air with the aim of increasing their surface area in contact with air to accelerate evaporation. Geomembrane is a layer of salt on the plot which serves to reduce the permeability of the soil to prevent water infiltration into the low and prevents direct contact between the salt crystals to the soil so that the resulting salt kept clean. Useful addition geomembrane layer increases the rate of evaporation of salt water because it has high solar heat absorption.

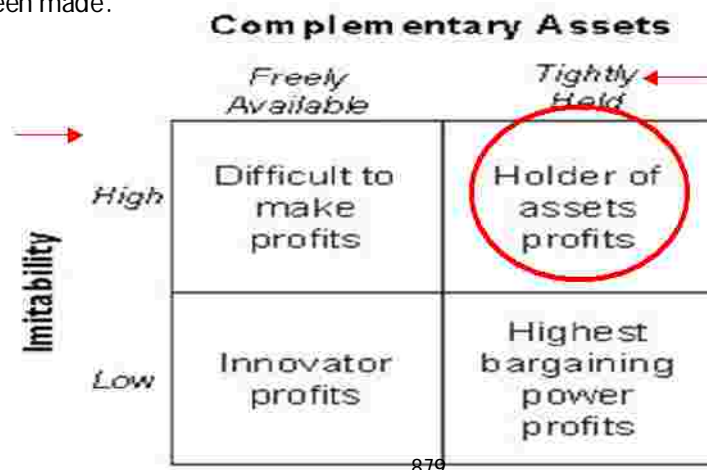
By previous research analysis technology electrolysis, evaporation and geomembrane has been proven to improve the quality of salt produced by salt farmers, so as to meet the need for salt industry in Indonesia and reduce the percentage of salt in Indonesian imports.

The Teece Model Analysis

Based on information obtained from the Garam Manis Company, judging from the ease of finding the raw materials to make the turbine electrolysis, and design that made this technology easy to duplicate by others, though who knows about the methods used to create the technology only the Garam Manis Company, but the technology that created in pairs in the open so others can easily find out about the technology. And this will be one of the major threats to Garam Manis Company.

Garam Manis Company produces a salt there of in a village on the northern coast of Indonesia precisely in the Desa Girang Parean. Kandanghaur, Kab. Indramayu, here is a Garam Manis Company is producing salt. Not only the production site are located in Desa Parean, warehouse and office was located not far from the land where the cost of production so that it does not require great to move the salts that have been harvested in the field to the barn. Garam Manis Company has a network to multiple companies which are the target market.

From the information that has been obtained in the above it can be concluded that imitability of technology owned by Garam Manis Company included into the category of high, meaning that the possibility of this technology is duplicated by others high, if not immediately given patent. Then, complementary assets owned by Garam Manis Company including into the category of tightly held, as to obtain complementary assets that exist with the existing competition in Indonesia is very difficult and Garam manis company has a warehouse to save the salt that harvested and Land area used Garam Manis Company to produce the salt is 40 ha. This land is located not far from the warehouse to store the salt that has been harvested. In Indonesia, the availability of land for the production of salt is still relatively low and there is no technology that can economically produce industrial salt that meets industry standards. In Indonesia, the availability of land for the production of salt is still relatively low and there is technology that can economically produce industrial salt that meets industry standards. From the analysis of the above the conclusion is Garam Manis Company included into the category holder of assets profit (as seen in figure 4.1 below) based on the theory of David Teece, that means Garam Manis Company will get benefit from technological innovations that have been made.



### Capital Expenditure

Capex (or Capital Expenditure) is a business expense incurred to create future benefit i.e. acquisition of assets that will have a useful life beyond the tax year. e.g. expenditure on assets like building, machinery, equipment or upgrading existing facilities so their value as an asset increases. Capital expenditure of Garam Manis Company can be seen in Table 4.6 below:

Table 4.6 Capital Expenditure

| CAPITAL EXPENDITURE |                                |            |     |                   |                     |                     |
|---------------------|--------------------------------|------------|-----|-------------------|---------------------|---------------------|
| N<br>O              | URAIAN                         | SATUA<br>N | QTY | NILAI             | JUMLAH              | TOTAL<br>JUMLAH     |
| 1                   | LAHAN (patokan NJOP)           | Ha         | 40  | Rp<br>30.000.000  | Rp<br>1.200.000.000 |                     |
| 2                   | PERIZINAN dan<br>SERTIFIKASI   | Ls         | 0   | Rp<br>40.000.000  | Rp<br>-             | Rp<br>-             |
| 3                   | PENGOLAHAN LAHAN               |            |     |                   |                     | Rp<br>4.700.000.000 |
|                     | Land treatment                 | Ha         | 40  | Rp<br>60.000.000  | Rp<br>2.400.000.000 |                     |
|                     | Pemasangan Geomembran          | Ha         | 10  | Rp<br>230.000.000 | Rp<br>2.300.000.000 |                     |
| 4                   | ALAT PRODUKSI Dan<br>PENDUKUNG |            |     |                   |                     | Rp<br>590.000.000   |
|                     | Kincir elektrolisis            | Unit       | 80  | Rp<br>5.000.000   | Rp<br>400.000.000   |                     |
|                     | Kincir pompa                   | Unit       | 80  | Rp<br>1.000.000   | Rp<br>80.000.000    |                     |
|                     | Pompa air cadangan             | Unit       | 5   | Rp<br>3.000.000   | Rp<br>15.000.000    |                     |
|                     | Peralatan panen                | Ls         | 1   | Rp<br>25.000.000  | Rp<br>25.000.000    |                     |
|                     | Alat Pendukung                 |            |     |                   |                     |                     |
|                     | Sepeda motor                   | Unit       | 2   | Rp<br>15.000.000  | Rp<br>30.000.000    |                     |
|                     | Sepeda                         | Unit       | 10  | Rp<br>2.000.000   | Rp<br>20.000.000    |                     |
|                     | Bangunan (gubuk)               | Unit       | 4   | Rp<br>5.000.000   | Rp<br>20.000.000    |                     |
|                     | TOTAL CAPEX                    |            |     |                   |                     | Rp<br>5.290.000.000 |

### Operational Expenditure

Opex is the money the business spends in order to turn inventory into throughput. The following operational expenditure of sweet salt company can be seen in table 4.7 below:



Table 4.7 Operational Expenditure

| OPERATION EXPENDITURE (Dalam satu tahun) |                                 |        |     |              |                |
|--|---------------------------------|--------|-----|--------------|----------------|
| NO                                       | URAIAN                          | SATUAN | QTY | NILAI        | JUMLAH         |
| 1  | UPAH KARYAWAN (durasi 120 hari) |        |     |              |                |
|  | Mandor (120 hari kerja)         | orang  | 2   | Rp 150.000   | Rp 36.000.000  |
|  | Pekerja (120 hari kerja)        | orang  | 30  | Rp 100.000   | Rp 360.000.000 |
| 2  | KARUNG 2000 pc/Ha               | pc/Ha  | 40  | Rp 2.000     | Rp 160.000.000 |
| 3  | MAINTENANCE                     | Ha     | 40  | Rp 1.000.000 | Rp 40.000.000  |
| 4  | OVERHEAD                        | Ha     | 40  | Rp 1.000.000 | Rp 40.000.000  |
|  | TOTAL OPEX                      |        |     |              | Rp 636.000.000 |

#### Depreciation

Depreciation is the assigning or allocating of a plant asset's cost to expense over the accounting periods that the asset is likely to be used. This is depreciation of Garam Manis Company, which can be seen in table 4.8 below:

Table 4.8 Depreciation

| Depreciation |               |        |     |                  |                |
|--------------|---------------|--------|-----|------------------|----------------|
| NO           | URAIAN        | SATUAN | QTY | NILAI            | JUMLAH         |
| A            | GEOMEMBRAN    | Tahun  | 15  | Rp 2.300.000.000 | Rp 153.333.333 |
| B            | ALAT PRODUKSI | Tahun  | 5   | Rp 590.000.000   | Rp 118.000.000 |
|              |               |        |     |                  | Rp 271.333.333 |

#### Cash flow

An accounting statement called the "statement of cash flows", which shows the amount of cash generated and used by a company in a given period. It is calculated by adding noncash charges (such as depreciation) to net income after taxes. Cash flow can be attributed to a specific project, or to a business as a whole. Cash flow can be used as an indication of a company's financial strength. The cash flow table of Garam Manis Company can be seen in Appendix B.

#### Payback Period

The payback period formula is used to determine the length of time it will take to recoup the initial amount invested on a project or investment.

$$\frac{1.109.733.757}{762.515.242} = \frac{4 - X}{X - 3}$$

$$1.455 = \frac{4 - X}{X - 3}$$

$$1.455 (X - 3) = 4 - X$$

$$1.455 X - 4.365 = 4 - X$$

$$1.455 X + X = 4 + 4.365$$

$$2.455 X = 8.365$$

$$X = \frac{8.365}{2.455}$$

$$= 3.407$$

Table 4.10 Net Present Value (MARR = 7.5%)

| Year | Net cash flow    | Discount factor 7.5% | PV               |
|------|------------------|----------------------|------------------|
| 1    | Rp 1.348.000.000 | 0,9302               | Rp 1.253.953.488 |
| 2    | Rp 2.291.226.667 | 0,8653               | Rp 1.982.673.157 |
| 3    | Rp 2.393.729.067 | 0,8050               | Rp 1.926.857.513 |
| 4    | Rp 2.500.331.563 | 0,7488               | Rp 1.872.249.599 |
| 5    | Rp 1.544.537.247 | 0,6966               | Rp 1.075.860.752 |
|      |                  | Total PV             | Rp 8.111.594.509 |
|      |                  | Investasi            | Rp 5.926.000.000 |
|      |                  | Net Present Value    | Rp 2.185.594.509 |

Based on the calculation of payback period, Garam Manis Company will payback within 3 years, 4 months, and 24 days. This indicates that the returns from this business relatively short when seen from the analysis of the business, which is 5 years.

#### Net Present Value

Net Present Value (NPV) is a formula used to determine the present value of an investment by the discounted sum of all cash flows received from the project.

As for the interest rate used in this analysis is 7.5%, taken from the BI rate on December 14, 2014, table 4.10 below is the calculation of the NPV of the company is:

By using the interest rate of 7.5%, which is taken from the BI rate, the NPV of Garam Manis Company is 2,185,594,509 > 0, so that businesses run by Garam Manis Company can be said to be a potential, because the requirements of a potential business or not potential is NPV > 0.

#### Internal Rate of Return (IRR)

Internal rate of return (IRR) is the interest rate at which the net present value of all the cash flows (both positive and negative) from a project or investment equal zero. to get the value of IRR, then the interest rate is determined when NPV = 0 to obtain the value of rate (interest rate), then the

required trial and error to find the value rate to NPV = 0 by using trial and error, table 4.11 and table 4.12 is the calculation results obtained as follows:

Table 4.11 Perhitungan NPV (MARR = 20%)

| Tahun | Net cash flow    | Discount factor 20% | PV               |
|-------|------------------|---------------------|------------------|
| 1     | Rp 1.348.000.000 | 0,8333              | Rp 1.123.333.333 |
| 2     | Rp 2.291.226.667 | 0,6944              | Rp 1.591.129.630 |
| 3     | Rp 2.393.729.067 | 0,5787              | Rp 1.385.259.877 |
| 4     | Rp 2.500.331.563 | 0,4823              | Rp 1.205.792.613 |
| 5     | Rp 1.544.537.247 | 0,4019              | Rp 620.714.879   |
|       |                  | Total PV            | Rp 5.926.230.331 |
|       |                  | Investasi           | Rp 5.926.000.000 |
|       |                  | Net Present Value   | Rp 230.331       |

Table 4.12 Perhitungan NPV (MARR = 21%)

| Tahun | net cash flow    | Discount factor 21% | PV               |
|-------|------------------|---------------------|------------------|
| 1     | Rp 1.348.000.000 | 0,8264              | Rp 1.114.049.587 |
| 2     | Rp 2.291.226.667 | 0,6830              | Rp 1.564.938.643 |
| 3     | Rp 2.393.729.067 | 0,5645              | Rp 1.351.197.654 |
| 4     | Rp 2.500.331.563 | 0,4665              | Rp 1.166.423.127 |
| 5     | Rp 1.544.537.247 | 0,3855              | Rp 595.485.971   |
|       |                  | Total PV            | Rp 5.792.094.981 |
|       |                  | Investasi           | Rp 5.926.000.000 |
|       |                  | Net Present Value   | Rp (133.905.019) |

By using the interpolation formula, then the IRR:

$$\frac{230.331}{133.905.019} = \frac{IRR - 20\%}{21\% - IRR}$$

$$0,0017 (21\% - IRR) = IRR - 20\%$$

$$0,0036 - 0,0017 IRR = IRR - 20\%$$

$$0,0036 + 0,2 = IRR + 0,0017 IRR$$

$$0,2036 = 1,0017 IRR$$

$$IRR = \frac{0,2036}{1,0017}$$

$$= 0,20017172$$

$$= 20,017\% > 20\%$$

IRR is one of the important criteria in determining whether potential or not a business. IRR achieved by Garam Manis Company for a period of 5 years is 20.0017%. The level of IRR is 20.0017% means that these businesses provide a profit rate of 20.0017% per year, a value greater than the interest rate is 20%. So based on level of IRR, it can be said to be a potential business.

## Conclusion

Based on the analysis that has been done, can be summed up as follows:

- If seen from the analysis of Market Size, Garam Manis Company has a sizeable potential market, that there are 3,015 textile, washing and water treatment industry in Bandung.
- Garam Manis Company has a big opportunity, because no one has been able to produce industrial salt that meet industry standards in Indonesia with the levels of NaCl is 99.5%, and is greater than the concentration of NaCl that accordance with SNI.
- The need for raw materials to make the technology can get from a local supplier and the raw materials to make the salt have been available.
- Based on the Teece model Analysis, technology / innovation that created by Garam Manis Company can generate profits for the company, because the result from the Teece model analysis is high from imitability and tightly held from complementary assets. Its means with the good complementary asset such as the land area of Garam Manis Company is 40 ha, and its located near from the warehouse. Garam Manis Company can generated profit with the technological innovation.
- Based on the analysis of the financial aspects that have been calculated, it can be concluded as follows:
  - a. From the calculation of the payback period and MARR has been determined in accordance with the BI rate (7.5%), it can be seen the payback period of this business fairly quick, which is the 3rd year, 4th month, 24th day.
  - b. From the financial analysis carried out, the results of the NPV calculation are IDR 2,185,594,509 > 0 (NPV > 0). This shows that the business is economically potential. If the NPV = 0, that means a business is potential to be continued.
  - c. From the results of the IRR calculation, the amount of the resulting IRR is 20.0017% > 20% (IRR > MARR).

## Recommendation

Based on the analysis above, the recommendation that the author gave to Garam Manis Company are:

1. Must always strive to improve the Performance of the company.
2. With industry conditions in Indonesia, Garam Manis Company shall provide to the patent technology invented.
3. The investment value of this salt business, including large, therefore the need for handling seriousness in terms of marketing and introduction of products to consumers.
4. From the external factors and internal factors analysis, Garam Manis Company may use the SO (Strength-opportunities) or WO (Weakness-Opportunity) strategies in marketing strategy, that is:
  - SO strategies
    - Strengthening the position of the product in the market.
    - Improve promotion as efforts to make the product known by the consumer.
  - WO strategies
    - Provide incentives to workers who work well.
    - Efficiency in spending.
    - Provide clear job desk to every division of labor that do not overlap.

But, Garam Manis company can do these strategies one by one starting from WO strategies first, clarifying the job description of each division so that all employees can work in accordance with the job description that is given, second give rewards or incentives to employees who work well and give punishment to employees who is not responsible with his job, then continued with some of the proposed strategies of the SO strategy, with reward and punishment to the employees, the employees who work in Garam Manis Company will be more enthusiasm for work and not leave the responsibility again because there will be a punishment given if not responsible for job, so that the

employee's performance can be increased and it makes every employee more aggressively to market the product and the results could further strengthen the product positioning which is owned by Garam Manis company.

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