

CHAPTER IV

RESULT AND ANALYSIS

A. Corporate General Description

1. Corporate History

In 1906, *Hindia Belanda* government established sugar mill, which was later purchased by Oei Tiong Ham Concern. This factory leads to be Kreet Baru sugar mill or PG Kreet Baru. During the war, in 1947, the sugar factory suffered severe damage so it does not operate. Upon the urging of IMA PETERMAS (*Indonesia Maskapai Andal Koperasi Pertanian Tebu Rakyat Malang Selatan*), in 1953, improvement was held in Oei Tiong Ham Concern factory working together with *Bank Industri Negara*. The quality of sugar production is High Sugar (HS), but since 1957, PG Kreet Baru able to produce sugar with Superior High Sugar (SHS) quality.

In 1961, Indonesian government take over all companies owned by Oei Tiong Ham Concern include PG Kreet Baru based on economic court decision no. 32/1961/eks. However, the activities of factory continue to run under the supervision of minister/ attorney general of Indonesia. In 1963, the company and the management of assets of ex OTHC transferred from the Minister / Attorney General of Indonesia to the *Menteri Urusan Pendapatan, Pembiayaan dan Pengawasan (P3)* which is now called the Ministry of Finance.

In 1964, Ministry of Finance of republic of Indonesia was established PT. Perusahaan Perkembangan Ekonomi Nasional (PPEN) Rajawali Nusantara Indonesia abbreviated as PT. Rajawali Nusantara Indonesia (PT RNI) which is State Owned Enterprises (SOEs) or *Badan Usaha Milik Negara (BUMN)*. Then this company become parent company of several state-owned companies, one of them is PG Kreet Baru. As a state-owned company, PT RNI has right to autonomy over its subsidiaries. Subsidiaries, which 100% owned, by PT RNI is as follows:

- PT. PG Rajawali I – Surabaya, include
 - PG. Kreet Baru Bululawang – Malang
 - PG. Redjo Agung – Madiun
- PT. PG Rajawali II – Cirebon
- PT. PG Candi Baru – Sidoarjo
- PT. Perkebunan Mitra Ogan – South Sumatra
- PT. Perkebunan Mitra Kerinci – West Barat
- PT. PG Madu Baru – Yogyakarta
- PT. Trophy Rajawali Banjaran (condom industry) – Bandung
- PT. Pharos (pharmaceutical industry) – Semarang
- PT. Rajawali Nusindo (general trade) – Jakarta
- PT GIEB Indo – Bali
- PT. Rajawali Citra Mas (plastic bag industry) – Mojokerto

- PT. Rajawali Tanjung Sari (animal leather industry) – Sidoarjo

In 1968, the mill capacity owned by PG Krobot Baru has reached 1.600 Tons of cane per day (TCD). In 1974, the PG Krobot Baru milling capacity was increased to 2,000 TCD. This increase was carried out with the repair and replacement of old machines. In 1976, a new sugar factory was established under the name PG Krobot Baru II that was originally intended to replace the PG Krobot Baru I, but governor of east java request that the old sugar mill should be operated; therefore, PG Krobot Baru I until now remained standing and producing. With the presence of new unit, the milling capacity can be increased to 5000 TCD. In 1982, milling capacity PG Krobot Baru I is 2,800 TCD were PG Krobot Baru II is 3600 TCD. However, since 2009 milling capacity of PG Krobot Baru I have been able to be increased to 6800 TCD and PG Krobot Baru II to 5.200 TCD, and will continue to be improved in accordance with the conditions.

2. Vision dan mission of Company

The vision of PG Krobot Baru is “as the best company in agro industry field, ready to face challenges and excellent in global competition, rest son own capabilities.”

The mission of PG Krobot Baru is “becoming the best performing company in agro industry field, managed in a professional and innovative with excellent quality product and excellent customer service orientations as the work of human

resources that reliable, able to grow and evolve to meet the demand of stakeholders”

3. Objectives and Corporate Culture

The objectives that are owned by PG Kribet Baru include:

- a. Conducting and supporting national economic development programs globally orientated industries especially in agro sector
- b. Have revenue growth above average of agro industry with a very healthy performance on an ongoing basis
- c. Be the five best companies engaged in agro-industry
- d. Have excellent customer service
- e. Ahead in the face of competition in a free market of globalization
- f. Being a workplace that is safe and convenient for professional dedicated

The corporate culture owned by PG Kribet Baru Malang include devotion to the Almighty God, honest and fair. Humble, open minded, respectful, professional, creative, innovative, teamwork, and caring the environment.

4. Company Location

PG Kribet Baru is located at Km 1 of Kribet Village, Bululawang sub-district, Malang Regency in East Java. The distance from Malang city is about 13 km and about 100 km from Surabaya. Location is considered strategic for the company due to several reasons such as:

- a. The abundance of raw material and subsidiary materials, which is are not far from the location of factory.

- b. Labor is also easy obtained from vicinity of factory
- c. Availability of water and electricity
- d. Transportation network to distribute the product due to it is located across the three junctions between Malang – Gondanglegi – Dampit.

5. Organizational Structure

The existence of organizational structure makes the authority and task every single employee can be identified and properly executed. Organizational structure of PT PG Rajawali I Malang has form of line and staff organizational structures. In this organizational structure, leader manages the subordinates directly, providing top-down authority and bottom-up responsibility.

Operational activity in PG Kribet Baru is led by Director of PT. PG Rajawali I, which oversees General Manager (GM) of PG Kribet Baru. GM oversees Plantation Manager, Engineering Manager of PG Kribet Baru I and II, Processing Manager of PG Kribet Baru I and II, Accounting and Financial Manager, and Human resources Department and General Affair Manager. While the group of employees at PG Kribet Baru are as follows:

- a. Staff employee is leader labour. The appointment procedur of staff employee is conducted by director.
- b. Non-staff employee is labor that the appointment procedur is conducted by the administrator and payroll issues regulated by government regulatory. The non-staff employee consist of:

- 1) Full-time employee is workers who have a working relationship with the company for uncertain time and this employees employment was preceded by a 3-month trial period.
- 2) Temporary employee is workers who have a working relationship for certain time. This employee divided to be three types, namely:
 - Campaign employee, as worker who works in the milling season like full-time employee also has same right as full-time employee such as mill worker.
 - Seasonal employee, i.e worker who work in the milling season but has no direct relationship with the process of sugar cane milling, for example sugarcane loggers.
 - Contract employee, workers who worked when contract with sugar mill during milling or not.

During milling season, the plant will work for twenty-four seven. In this time, the working hours of employees divided into 3 shifts as follows:

- Staff employee

First Shift : 07:00 to 15:00

Second Shift : 15.00 to 23:00

Third Shift : 23.00 to 07:00

- Non staff

First Shift : 05:30 to 13:30

Second Shift : 13:30 to 21:30

Third Shift : 21:30 to 05:30

For staff employee, the schedule shifted every 5 days, and every 7 days for non-staff employee. Time schedule outside milling season as follows:

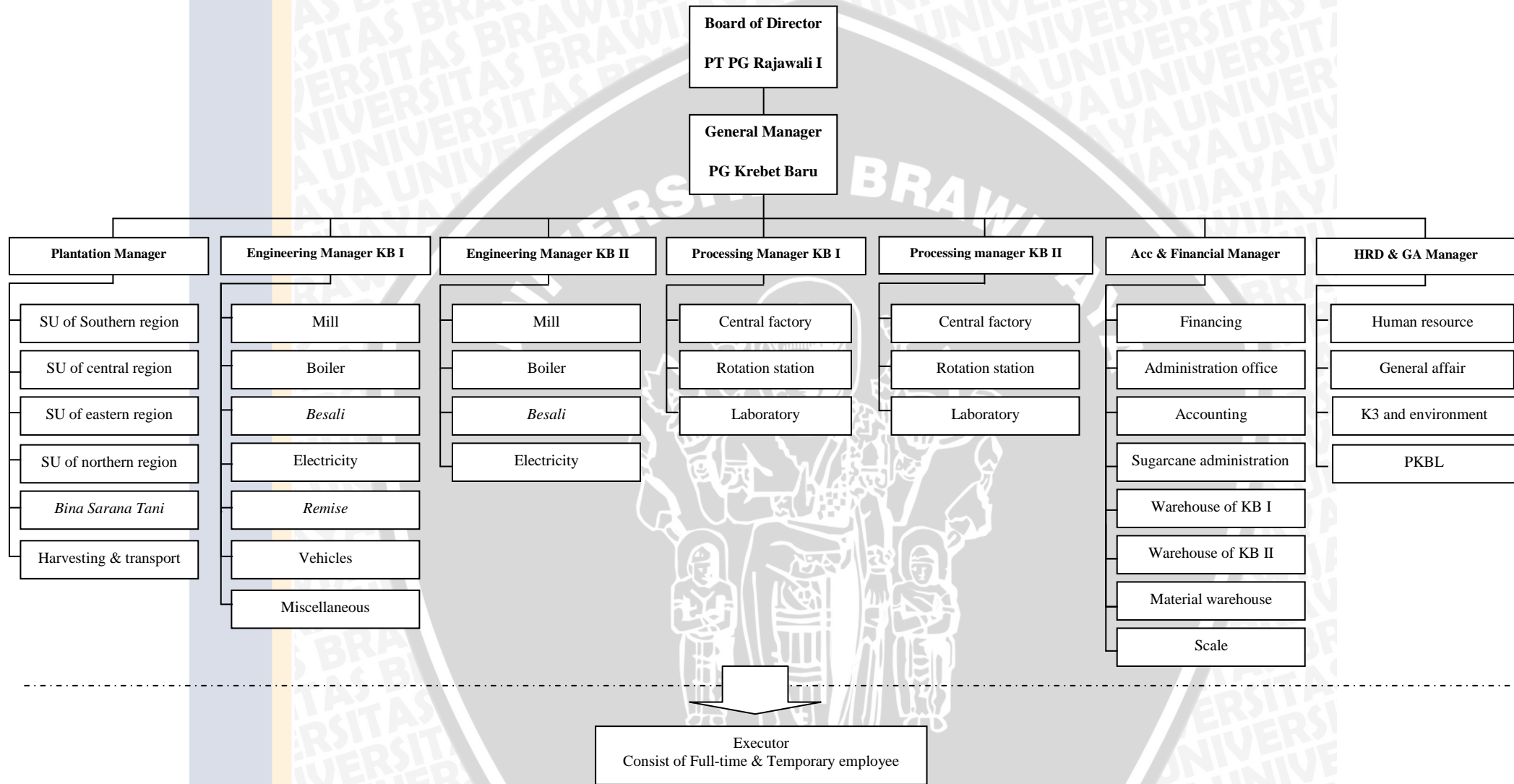
- Monday – Thursday : 07:00 to 12:00 and 13:00 to 16:30
- Friday : 07:00 to 11:30
- Saturday : 07:00 to 12:30

Table 1 presents the composition of employee of PG Krobot Baru.

Table 1 Employee Data of PG Krobot Baru

No	Division	Quantity
1	Plantation	655
2	Engineering KB I	353
3	Enggining KB II	287
4	Processing KB I	286
5	Processing KB II	253
6	Accounting and Financial	141
7	HRD and GA	98
Total		2073

Source: PG Krobot Baru, 2013



Source: PG Kreet Baru, 2013

Figure 1 Organizational Structure Chart in PG Kreet Baru Malang

6. Main Duties and Responsibility

The division of duties and responsibility in PG Kreet Baru are as follow:

a. General manager (GM)

Managing the company as a whole with policies that is established by board of director. Then, the GM has duties e.g.

- 1) Formulating the objectives in the framework of goals established by board of director
- 2) Implementing the strategic to achieve the company objectives
- 3) Supporting the director to arrange company long-term plan

Then, the authorities of GM such as choose and define strategies to achieve the company goals, controlling the implementation budget of company and appointment and dismiss non-staff employee of the company

b. Accounting and Financial Manager

Implement the policies of director and administrator in the field of budgeting, accounting, general and human resource and leading the administration and finance to achieve company goals and targets the duties of this manager such as

- 1) Planning and monitoring the circulation of finance and conducting finance issue analysis.
- 2) Recording receipts, expenditure and storing the company money
- 3) Implement payroll policies, welfare and safety in accordance with applicable regulations.

- 4) Implement accounting data processing to produce financial information for stakeholders.
- 5) Arrange budget that will be proposed to director.

Then the authorities of this manager are refusing every expense and receipt that is not accordance with the system and procedure, request the necessary information related to the task in order to process the accounting data and determining the procedure of withdrawal and placement of non-staff employee.

Head of Head of administration and finance directly supervises several sections covering:

- a) Head of administration office supplies

Assisting manager of accounting to conduct administration office supplies and perform physical examination on ongoing basis as well as the lead the sub-section in order to achieve the goal and target.

- b) Head of accounting

Implementing the policy and provision of director GM in accounting and lead accounting and financial section in order to achieve company goal and target

- c) Head of sugarcane administration

Assisting manager of accounting to conduct recording toward farmer sugarcane and lead the sub-section in order to achieve the goals and targets.

d) Sugar warehouse

Assisting manager of accounting to maintain and supervising the security of warehouse, product packing, and product mutation

e) Material warehouse, e.g.:

Assisting head of accounting and budget in receipt, budget and storage as well as maintenance supplies inventory of company and creating reports on inventories that have reached the minimum inventory

f) Scales

Weighing of sugarcane to be milled and completing administrative of logging wages, and create report about it

c. Human Resources Department and General Affair Manager

This manager assists GM in implementing the policy of director and administrator provision in the field of human resource and general affair involve conducting recruitment of prospective employees, implementing the provisions on employee development education.

- Authorities e.g.:

- 1) Calculating social security benefits and employees in accordance with applicable regulations

- 2) Allocating budget to develop human resources proposed by GM

- Responsibilities, e.g.:

- 1) The accuracy of wages, salaries and employee benefit calculation

- 2) Smooth implementation of the company prospective employee recruitment
- 3) Accuracy and truth administrative employees

Manager of Human Resources Department and General Affair directly oversees several sections, including:

a) Head of Human Resource department

Head of Human Resource department assists human resource manager to save calculation data of wages, salaries and social security rights of other employees

b) Head of general affair

Assisting human resource manager in implementing activities include general affair.

d. Plantation Manager

Plantation manager implements board policies and provision of administrator in the field of sugarcane, sugarcane inspection, conducting the GM provision especially in sugarcane supply, transportation, counseling, and guidance regarding agricultural technical.

Plantation Manager directly supervises several sections, including:

1) *Kesinderan*

The duties of this section is cultivateing experiment / demonstration garden, registering participant of *Tebu Rakyat Intensifikasi* (TRI) and Assisting to monitor the implementation of sugar cane harvest and transport

2) Head Regional Gardens

This section has function to conduct coordination associated with higher agencies to maintain the duties of *kesinderan*.

3) Head of farmer development

The duties of this section is processing the experimental garden and responsible for plant production development.

4) Head of logging and transport

This section responsible to the logging and transportation of sugarcane that ready to be milled, conducting coordination with another part.

e. Processing Manager

Assisting GM to implementing obligation of board of director and administrators provision to achieve the goals and target especially to carry out and controls the sugar production. Another duties of processing manager such as:

- 1) Oversee the quality, weighing and packing of sugar
- 2) Assisting installation division in maintenance of the equipment outside the mill machine
- 3) Reporting activities related to sugar processing to the relevant government agencies

- Authorities, e.g.:

- 1) Stopping the production process if considered necessary and report to the factory
- 2) Arranging routine and incidental report about plant
- 3) Set the budget will be proposed to the head of engineering

Manager of processing directly oversees several sections namely:

- 1) Section of central station plant

Duties of this section is reporting all activities in central station plant to the head of factory and supervising all work at central station plant especially mill season.

- 2) Section of rotation station

This section responsible for the smooth work of rotation station, reporting all activities in rotation station to mechanic section and supervising all activities in rotation station

- 3) Head of laboratory section

The duties of this section is controlling the chemical substance in sugarcane mill, analyzing the raw juice, thick juice, dilute juice, cuisine juice, strops of sugarcane and sugar and testing the quality of sugar production

f. Engineering Manager

This manager acts as coordinator of all activities in engineering division.

This manager responsible to the GM upon the whole work in installation unit,

arrange work plan on the installation and run the work plan after be approved by GM and assisting maintenance and reparation of plant, and operate machinery and factory equipment

- Responsibility, e.g.:
 - 1) Maintain the smooth of production process
 - 2) Maintain and repair the equipment
 - 3) Creating coordination and discipline

Engineering manager supervise several section, e.g.

- 1) Head of mill station

Managing equipment and human resource in mill station and supervising the mill process, also coordinating the technicians in the event of damage during the milling process

- 2) Head of boiler station

Maintaining the equipment and human resource in boiler station to achieve the goal and target

- 3) Head of power station

Managing the equipment and human source in power station, controlling the electrical installation at the time of operation and coordinating the technicians in the event of damage to the installation

- 4) Section of *besali* station

This section responsible for the smooth work on the *besali* and reporting all events conducted at the *besali*

5) Remise station section

Assisting the maintenance and repair lorry and locomotives, managing the use of lorry and locomotives

6) Section of vehicle

Assist in managing the company vehicle, maintaining and repairing the vehicle of company, keeping the vehicle documents, taking care of taxes and other obligation associated with vehicle

7) Section of miscellaneous station

Assisting another activities associated with company activities established by employer such as cleaning service, pantry etc.

7. Production Process and Result

a. Production

Raw material needed by PG Kribet Baru is sugar cane. The cane comes from two main sources, namely historical garden located among Bululawang, Gondanglegi, Turen, Wajak, Dampit, Dau, Sumber Manjing, Singosari, Lawang. This garden already there since the plant established. Second is expansions garden. Sugar making auxiliaries are lime, sulfur, soda ash, caustic soda, liquid phosphoric acid and TSP. Stages of the production process can be described as follows in the following figure:

1) Preliminary station

The function of this station is to know the number of sugarcane by using scale system. Sugarcane will be milled have waiting time between 24-36 hours with first in first out (FIFO) system.

2) Mill station

- First step, sugar cane that will be milled should be cut in order to make it filamentous destroyed by using unigator
- Second step, sugarcane in the form of filamentous destroyed milled by mill roll to extract the sap as much as possible. The first sap from first milled is called preliminary sap. First bagasse is milled again in second mill until fifth mill to extract remain sap. Especially in fourth and fifth mill, there is imbibitions process. This process is adding some hot water sprayed to the bagasse when it milled in order to make sure that all sap could be extracted.

3) Purification station

The purpose of this station is to eliminate organic and anorganic substance non-sugar as much as possible brought by sap in order to clear the sap. The purification in PG Kreet Baru uses sulfitation process. Sap purification uses lime and sulfur dioxide as cleaner substances. Crude sap was given by excess lime and then the excess is neutralized by sulfur dioxide, which is a result of the combustion of

sulfur then heated to the boiling point 100°-105° Celsius. The clear sap was flowed to evaporation station while dirty sap was flowed to filtering station in order to separate the clear sap and dirty sap. Dirty sap is called as *blotong*, while clear sap is called dilute sap.

4) Evaporation station

This station has function to coagulate the sap by evaporate the water contained in dilute sap. Evaporation system used by PG Kribet Baru is called as quintuple effect. The result of evaporation is thick sap with murky colors when compared with dilute sap due to have experience the process of heating and coagulation resulting in sedimentation of some kind of material instead of sugar. Clearing the dark color of sap, the second sulfication process is necessary to make sap clear.

5) Cooking station

The purpose of cooking station is condensing and crystallizes the sap in order produce sugar crystal as much as possible with the rest of the sugar in the molasses as small as possible. There are two steps of crystallization process. First step is called as crystal nucleation. The second steps is called crystal enlargement. In the process of cooking, PG Kribet Baru uses pan and dish ACD as the cooking system.

- Dish A

The cooking ingredient of dish A is thick sap that has undergone sulfitation added by sugar C and klare 1. After cooked, the dish added by water to separate the sugar A and stroops A. stroops A will be used to cook dish C.

- Dish C

Dish C uses stroop A dan seed sugar of D. after cooked, sugar C and stroop C is separated.

- Dish D

The ingredients of Dish D are thick sap that has undergone sulfitation, stroop C, klare III dan fondan.

6) Rotation station

In this station, crystal is separated from its solution to produce super high sugar by using rotation equipment. This separation occur continuously and the cooking results from cooking ststion will be used to rotate the flow of sugar c and d.

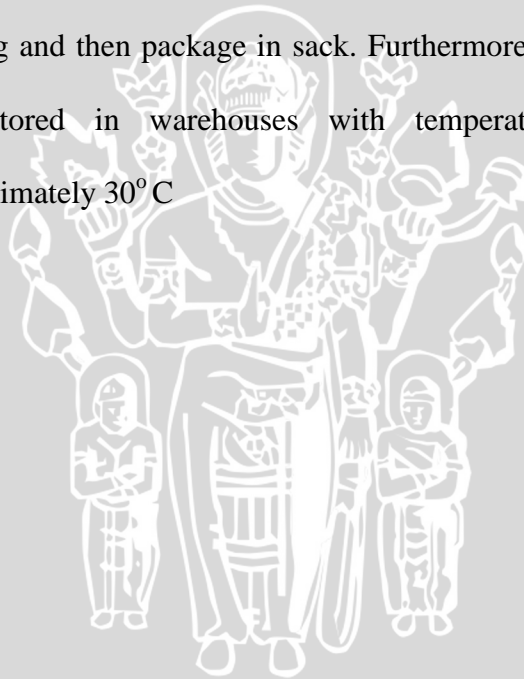
7) Completion station

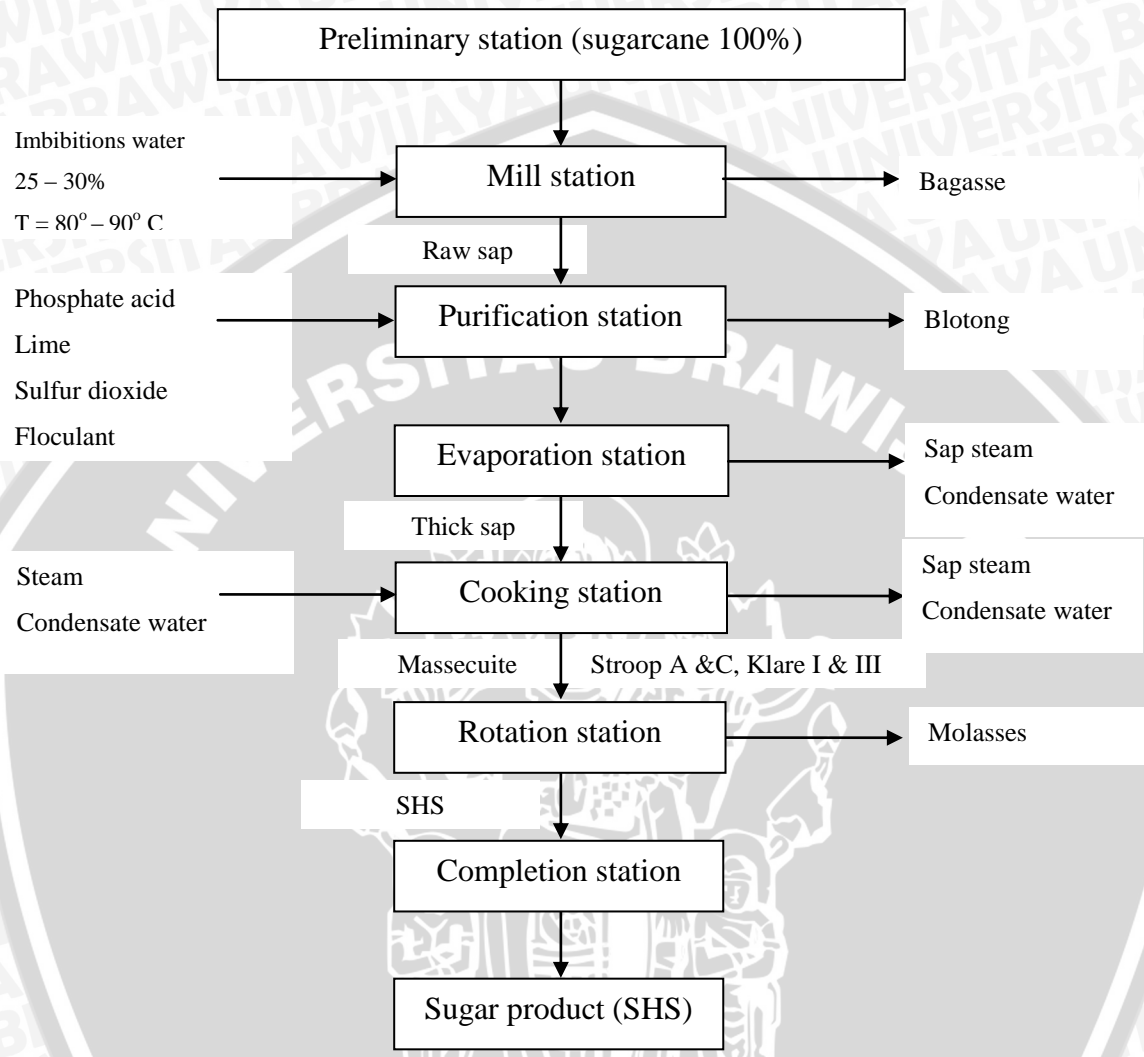
- Drying

Activity occurs in this process is sugar separation between sugar products, raw sugar, and sugar dust. The equipment used is shaking chamfer with filter.

- Packaging and storage

Qualified sugar size is stored in a plastic bag with net weight 50 kg per bag and then package in sack. Furthermore the sack is stitched and stored in warehouses with temperature conditions of approximately 30°C





Source: PG Kreet Baru, 2013

Figure 2 Stages of Sugar Production in PG Kreet Baru

b. Production Result

Production result of PG Kreet Baru is sugar with super high quality or superior high sugar (SHS). While, byproduct of PG Kreet Baru that also support primary revenue of the company is molasses. Other byproducts of PG Kreet Baru such as *blotong* and bagasse are used as additional fuel for production.

- Molasses

Molasses could be used as the ingredient of seasoning, alcohol etc.

- Blotong

Blotong is waste from the dirt of sugarcane, colored black like soil. and can be used as fuel for cooking liquid sap and fuel lorry.

- Bagasse

Bagasse is the result of sugarcane juice that could be used as fuel of boiler.

8. Marketing

The sugar marketing system in PG Kreet Baru is closed auction held by *Asosiasi Petani Tebu Rakyat (APTR)* and facilitated by PT PG Rajawali I. The action attended by farmer, APTR, and delegation of sugar mill. Selling price determined by the auction system on Surabaya every weekend during milling season, this is between the months of May to November.