

Management Of Cocoa Bean Processing Business PT Perkebunan Nusantara XII Kendenglembu Plantation

Pengelolaan Usaha Pengolahan Biji Kakao PT Perkebunan Nusantara XII Perkebunan Kendenglembu

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ABSTRACT

This study aims to determine the human resource, operational, and marketing management of cocoa beans at PTPN XII Kendenglembu Gardens. This study uses qualitative research methods with data collection techniques through observation, interviews, documentation, and literature. Data analysis using the Interactive Model starts with data collection, condensation, data presentation, and drawing conclusions or data verification. The results showed that human resource management at PT PTPN XII Kebun Kendenglembu, namely the status and remuneration system for casual and wholesale field workers; worker welfare includes training, education, haji financing, health, giving, and other programs; development of certain levels at PTPN XII through management trainee programs, talent management, and career planning. Operational management of cocoa bean processing at PTPN XII Kendenglembu Plantation starts from receiving and weighing cocoa beans, fermentation; drying cocoa beans; drying cocoa beans; tempering and sorting cocoa beans; ready warehouse. While the marketing management at PTPN XII Kendenglembu Gardens, the cocoa bean products produced are dry cocoa beans, Cocoa Edel and Cocoa Bulk. The price of Edel Cocoa beans is considered the most expensive when compared to Bulk Cocoa. Edel Cocoa marketing is prioritized for export market share, and Bulk Cocoa is primarily local. Promotion is done directly and indirectly.

Keywords: Business Management, Human Resources Management, Operations Management, Marketing Management, Cocoa

ABSTRAK

Penelitian ini bertujuan untuk mengetahui manajemen sumber daya manusia, operasional, dan pemasaran biji kakao di PTPN XII Kebun Kendenglembu. Penelitian ini menggunakan metode penelitian kualitatif dengan teknik pengumpulan data melalui observasi, wawancara, dokumentasi, dan studi pustaka. Analisis data dengan menggunakan Model Interaktif dimulai dari pengumpulan data, pemadatan, penyajian data, dan penarikan kesimpulan atau verifikasi data. Hasil penelitian menunjukkan bahwa manajemen sumber daya manusia di PT PTPN XII Kebun Kendenglembu yaitu status dan sistem pengupahan pekerja lapangan lepas dan borongan; kesejahteraan pekerja meliputi pelatihan, pendidikan, pembiayaan haji, kesehatan, zakat, dan program lainnya; pengembangan jenjang tertentu di PTPN XII melalui program management trainee, talent management, dan career planning. Pengelolaan operasional pengolahan biji kakao di Perkebunan PTPN XII Kendenglembu dimulai dari penerimaan dan penimbangan biji kakao, fermentasi; pengeringan biji kakao; pengeringan biji kakao; tempering dan sortasi biji kakao; gudang siap pakai. Sedangkan manajemen pemasaran di PTPN XII Kebun Kendenglembu, produk biji kakao yang dihasilkan adalah biji kakao kering, Kakao Edel dan Kakao Curah. Harga biji Kakao Edel terbilang paling mahal jika dibandingkan dengan Kakao Curah. Pemasaran Kakao Edel diprioritaskan untuk pangsa pasar ekspor, dan Kakao Curah diutamakan lokal. Promosi dilakukan secara langsung dan tidak langsung.

Kata kunci: Manajemen Bisnis, Manajemen Sumber Daya Manusia, Manajemen Operasi, Manajemen Pemasaran, Kakao

1. Introduction

Cocoa (*Theobroma cacao L*) is one of the plantation commodities in Indonesia, which has an important role in the national economy to increase the country's foreign exchange. Cocoa is a tropical plant that is suitable for soil culture and climate in Indonesia. Based on *WorldAtlas* data, Indonesia is the third largest cocoa-producing country in the world, with production reaching 659.7 thousand tons in 2020 (Dihni, 2021). Indonesia is also only one of the top five cocoa-producing countries, which is not located in Africa but Southeast Asia. In Indonesia alone, several provinces in Sulawesi will become the largest cocoa producers nationally in 2020. Central Sulawesi is the province in Indonesia that produces the most cocoa, 128.2 thousand tons. Meanwhile, East Java Province is ranked 9th with a total production of 31.4 thousand tons, which also places East Java as the only province on the island of Java that is included in the top 10 largest cocoa-producing regions in 2020. (Rizaty, 2021). A comparison of the amount of cocoa production in the World and Indonesia can be seen in the following figure:

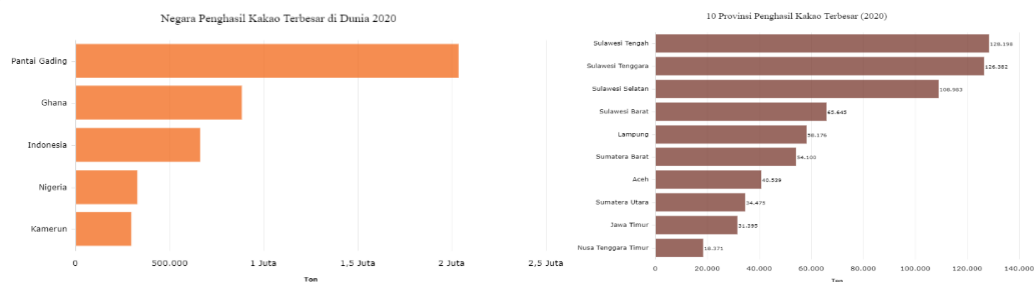


Figure 1. The Largest Cocoa Production in the World and Indonesia

Source : Dihni (2021) and Rizaty (2021)

Banyuwangi is one of the districts with the most significant cocoa production in East Java Province. By 2020, the district, which is located at the easternmost tip of Java Island, will be able to produce 8.2 thousand tons of cocoa (BPS Provinsi Jawa Timur, 2022). Banyuwangi Regency has long been known as the world's best chocolate producer. The Kendenglembu plantation, which PTPN XII manages, is located in Karang Harjo Village, Glenmore District, Banyuwangi. Two types of chocolate are the mainstay of this plantation, namely edel and bulk chocolate. PT Perkebunan Nusantara (PTPN) XII's Cocoa or Chocolate production is claimed to be the world's best quality chocolate production and is even famous in Europe because until now, the cocoa plantations in Kendenglembu Gardens in the Glenmore area are very well maintained. Glenmore is known as the best cocoa bean producer in the world. Nearly 86 percent of the cocoa from plantation crops is exported such as Japan, Germany, France, Italy, the USA, Malaysia, and Singapore (Husdinariyanto, 2022).

The Covid-19 pandemic has affected cocoa performance, so Indonesia needs to increase its cocoa production. Based on the 2020 Annual Report of PT Perkebunan Nusantara XII, it was explained that for several years, Edel Cocoa and PTPN XII Bulk Cocoa commodities contributed to losses to the company's revenue. Income and profit and loss for PTPN XII edel and bulk cocoa commodities are as follows:

Table 1. Profitability of PTPN XII's Edel and Bulk Cocoa Commodities.

| Description | 2018 | 2019 | 2020 |
|----------------------------|------------------|------------------|------------------|
| Edel Cocoa | | | |
| Operating income | 21.135.554.644 | 18.274.394.648 | 13.540.594.174 |
| Profit (loss) for the year | 2.379.727.607 | (49.475.920.310) | (34.123.137.362) |
| Bulk Cocoa | | | |
| Operating income | 49.734.864.479 | 45.336.404.334 | 28.545.574.421 |
| Profit (loss) for the year | (16.024.134.057) | (40.918.706.516) | (35.979.260.362) |

Source: PT Perkebunan Nusantara XII (2021)

Based on the table above, it can be explained that in 2018-2020 there was a decrease in sales value for edel and bulk cocoa commodities. In addition, PTPN XII recorded a loss for the current period on edel cocoa in 2019 of IDR 49.48 billion and 2020 of IDR 34.23 billion. As for bulk cocoa commodities, PTPN recorded losses for the current period starting in 2018 of Ro 16.02 billion, in 2019 of IDR 40.92 billion, and 2020 of 35.98 billion. Therefore, the only cocoa area that is maintained is the Kendenglembu plantation. The area that is maintained is a provider of raw materials for the downstream industry of the Cocoa Hamlet in the Kendenglembu plantation (PT Perkebunan Nusantara XII, 2021). Unsustainable cocoa areas are converted to Sugarcane and Timber plantations to avoid losses. PTPN XII's commitment to increasing production and productivity is realized by carrying out intensive plant maintenance through 6 T fertilization (on time, method, type, dose, place, and supervision) and maintenance according to technical standards. Maintaining the cocoa area in the Kendenglembu plantation requires proper business management so that the cocoa commodity, the mainstay of this commodity, can survive.

The basic business management of a company's success cannot be separated from good business management because it can support the company in achieving its goals. Business management, also known as business management, is the process by which a company plans, organizes, directs, and controls its activities and resources to achieve its goals effectively and efficiently in an ever-changing environment (Daft, 2007). The importance of business management cannot be ignored because a company's success depends entirely on how well it is managed. Business management is needed in the company's internal context so that the company has a direction in running a business, measurable and well-planned (Andriani et al., 2022).

Based on the description above, this study aims to (1) determine the management of human resources at PTPN XII Kendenglembu Gardens; (2) determine the operational management of cocoa bean processing at PTPN XII Kendenglembu Gardens; and (3) determine the marketing management of cocoa beans at PTPN XII Kendenglembu Gardens. Thus, this research aims to find out the business management carried out by PTPN XII, especially in the Kendenglembu plantation in maintaining cocoa as a mainstay commodity in the Kendenglembu plantation, Glenmore, Banyuwangi.

2. Literature Review

Human Resource Management

Human resource management is a process of dealing with various problems within the scope of employees, laborers, managers, and other workers to support the activities of the organization or company to achieve predetermined goals (Abdullah, 2017). Human resource management also concerns the design of planning systems, employee preparation, employee development, career management, performance evaluation, employee compensation, and good employee relations. Human resource management involves all management decisions and practices that directly affect human resources (Hardana, 2015).

According to (Luila & Haryadi, 2013), the HRM function is divided into two functions, namely (1) managerial functions directed at realizing the main objectives of human resource management, namely optimally utilizing human resources in an organization, where managerial functions include planning, organizing, directing, and control; (2) operational functions are the basic implementation of efficient and effective HRM processes in achieving organizational/company goals, where operational functions consist of procurement, development, compensation, integration, maintenance, discipline, and dismissal.

Operational Management

Operational or production management is a series of activities or processes in creating goods, services, and activities that change form by creating or adding value to goods or services that are used to meet human needs (Faiq et al., 2021). The scope of operations management relates to decisions regarding the operational process of a production system, selection and preparation of operating systems which include (Sukmono & Supardi, 2020): (a) Decision making in planning the optimal amount of production capacity; (b) Decision making in factory building planning, layout, facility layout design; (c) Decision making in the design of the transformation process; (d) Decision making in workflow design; (e) Decision making in inventory management; (f) Decision making in project management; (g) Decision making in making work schedules or schedules; (h) For quality control and supervision; and (i) For the maintenance of production facilities.

Marketing Management

Marketing management is the art and science of selecting target markets and reaching, retaining, and growing customers by analyzing, planning, and controlling programs with the hope that company goals can be achieved (Sumarsid & Paryanti, 2022). The marketing mix combines elements for planning and implementing the overall marketing operations because the marketing mix is controllable and interrelated (Prasetio & Laturette, 2017). According to (Mamonto et al, 2021), the marketing mix is a strategy to interfere in marketing activities, to find the maximum combination to bring satisfactory results. The marketing mix includes four (4) main things or the universal concepts that have been developed in marketing: product, price, place, and promotion (Miati & Tresna, 2020). SWOT analysis is the identification of various factors systematically to formulate a company strategy, this analysis is based on the logic that can maximize strengths and opportunities but simultaneously minimize weaknesses and threats (Astuti & Ratnawati, 2020). The purpose of this SWOT analysis is to provide an overview of the results of the analysis of the company's strengths, weaknesses, opportunities, and threats as a whole which is used as the basis or basis for preparing company objectives and strategies in corporate planning (Ellitan et al., 2021).

3. Research Methods

The research method used is a qualitative research method, which is more based on social phenomena that arise because the best cocoa in East Java is the edel type originating from Kendenglembu Gardens, Glenmore, Banyuwangi. The type of research used in this research is descriptive research type.

Data collection techniques include observation, interviews, documentation, and literature supporting the research. Observations were made at the Cocoa Plantation and Cocoa Processing Factory of PTPN XII Pagergunung Kendenglembu Gardens to learn about the cocoa bean processing process. At the same time, interviews were conducted in person on July 15, 2022, and virtually through a zoom meeting on July 18, 2022. The determination of informants in this study was considered the master—material on HR, operational, and marketing management at PTPN XII, especially Kendenglembu Gardens. The primary informants of this study were the assistant head of the afdeling and four other permanent employees of PTPN XII Kebun Kendenglembu as supporting informants.

The research instrument used an interview guide, an observation guide, a deaf device, and a voice recorder (mobile phone). Interview and observation guides were used as guidelines so that in the interview process, the information obtained did not deviate from the research objectives that had been previously determined. While the data analysis using the *Interactive Model* from (Miles et al, 2014) is divided into several parts of analytical activities,

namely: data collection, data condensation, data presentation, and drawing conclusions or data verification.

4. Results And Discussions

Human Resource Management

a. Total, Status, and Salary System of HR at PTPN XII Kendenglembu Plantation

During the peak harvest, the number of workers in the Kendenglembu Garden is around 200 people spread to several afdeling in the Kendenglembu garden. While the permanent workers of PTPN XII Kendenglembu Plantation numbered around 70-80 people spread over several afdeling under the Kendenglembu Plantation, and in one afdeling there were about 5-6 permanent workers. The total afdeling under Kendenglembu Plantation initially consisted of 11 afdeling, because there were two afdeling that went to sugar cane, so the total was nine afdeling.

The salary system of PTPN XII Kendenglembu Plantation is a piece rate if the amount of cocoa bean production is high, and if the production is low, a daily wage system will be used. At peak harvest, the average daily income can reach a minimum of IDR 100,000/person; when it is not peak harvest or based on moderate/high daily production, workers' income is half of the peak harvest. At a certain level for reward and punishment, workers will receive a performance allowance of 150% of the basic salary if production exceeds the monthly target or achievement. However, if the production does not reach the target, there will be a salary cut.

The status of workers in the field and plantations are all daily casual and wholesale status, and there is no contract status. Contract status is only for employees who are included in the organizational structure. Garden workers only work when there is maintenance or activities in the garden, such as harvesting, pruning, tapping, etc., all carried out by workers from the surrounding community.

b. HR Training and Development at PTPN XII Kendenglembu Plantation

Training is a method used to develop human resources related to the abilities or skills of employees or employees who have occupied a certain position or job in a company or organization. Meanwhile, human resource development is an activity that is carried out consciously to encourage employees to have more skills or abilities so that they can meet the demands of work in the future (Apriliana & Nawangsari, 2021).

The improvement of competence for field workers at PTPN XII Kendenglembu Plantation is carried out in two ways, namely, (1) Field workers gain competence as garden workers by directly observing the surrounding community and their families working on the plantation; and (2) PTPN also provides refreshment training for plantation workers following existing SOPs. While the training program is also carried out in two ways, namely internally by the company where the resource persons are experts in specific fields from PTPN XII itself, and through external collaboration with Puslitkoka (Coffee and Cocoa Training Center) in Jember. This training is a human resource development program held at least once a year.

Meanwhile, to maintain quality control, audits are always carried out regularly. The audit assessment is carried out in two ways, (1) internal audit conducted by the Internal Audit Unit department, the first stage is the audit to find problems, and the second is the Follow-Up Monitoring audit related to the continuation of the audit in resolving existing problems; and (2) an external audit is carried out by the Supreme Audit Agency and the Public Accounting Firm.

Permanent employees of PTPN XII at certain levels (managers and assistant managers) will be certified according to their respective competencies in the field (afdeling division, finance, general administration, engineering and processing). Meanwhile, development at a certain level at PTPN XII consists of:

- Management Trainee (MT) has a minimum requirement of 2 years working on the plantation.
- Talent Management is assessed from performance appraisal.
- Career Planning is adjusted to the assessment carried out by HR during the field assessment. Selection assessment through several tests, namely psychological tests, written exams, interviews, and presentations. The final result of the selection is based on the highest assessment score, and those selected have qualified abilities according to the standards desired by PTPN XII.

c. Employee Welfare at PTPN XII Kendenglembu Plantation

Employee welfare is a complementary reward (material and non-material) given based on wisdom, where a fair and proper level of welfare really helps motivate employees to improve their performance with the aim of maintaining and improving their physical and mental conditions so that work performance increases. (Hermanto & Darmanah, 2019). According to (Subardjono, 2017), the welfare of employees is significant and valuable to meet the physical and mental needs of employees and their families, job satisfaction, dedication, discipline, and employee loyalty toward the company.

PTPN XII Kendenglembu Plantation is very concerned about the welfare of its workers. Some of the welfare that PTPN XII workers will obtain are as follows:

- Certain level employees, to develop their competencies, will receive training from external companies
- Higher education scholarships for field workers who have the potential to occupy higher positions
- Free Hajj pilgrimage program for all workers, both field workers and in organizational structures, where the assessment is carried out confidentially by the company according to predetermined criteria
- Health Services (BPJS Health and Employment Insurance)
- Education for children of garden workers (kindergarten, elementary school, and junior high school)
- College education scholarships for workers' children with a cash reward of around IDR 2,000,000
- Other programs (posyandu, vaccines, blood donations, cash transfers)
- The program for providing basic needs in food, milk, eggs, vitamins, etc., is only held once every few months.

All programs made by PTPN XII Kendenglembu Plantation related to welfare are made fairly, not only for welfare for a certain level but also for the overall welfare in the working area of PTPN XII Kendenglembu Plantation because it follows the tagline of the company's video profile that PTPN XII believes in the performance of the factory, and good employee welfare will produce the best cocoa quality, and employee welfare is the most important part of improving the overall quality of agribusiness. The difference in welfare between certain levels and field workers is only in facilities and severance pay. In addition, all workers have equal opportunities.

Operational Management of Cocoa Processing at PTPN XII Kendenglembu Plantation

Cocoa production at PTPN XII has been carried out following entity regulations prioritizing the best quality for consumers. Kendenglembu Farm's cocoa production implements processes that can maintain the cleanliness and halalness of the product from receipt to delivery. Kendenglembu Farm's cocoa production uses its raw materials and facilities to ensure its quality. The cocoa processing process can be seen in the following figure:

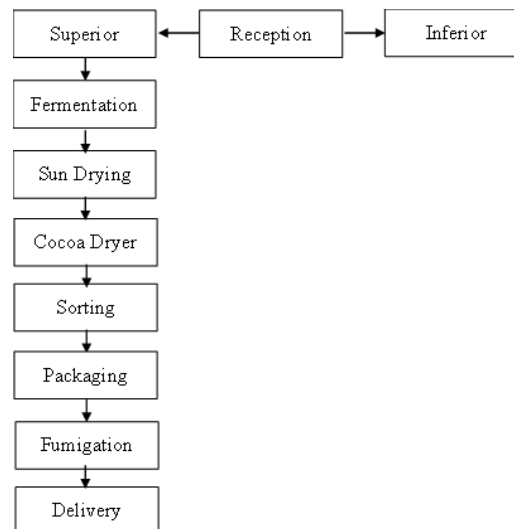


Figure 2. Cocoa Processing Flowchart

Based on the cocoa processing flow chart above, each stage can be described as follows:

a. Receiving and Weighing of Cocoa Beans

At the reception of cocoa production, the officer checks that the vehicle is clean and that the production can be removed from the vehicle. Furthermore, the production is carried out by weighing and followed by quality control through the wet cocoa picking test, where the procession carried out in this test is taken and all samples are directly weighed. Sampling was carried out on each sack using a tube. The wet picking test aims to determine the content of good and defective beans that can affect the quality of the final product and is used to determine the dry yield of cocoa beans. Minimum picking test of 95% superior good seeds; placenta, young seeds, prongkol, rotten seeds <5%; and Edel were subjected to wet magra with DB (Dark Bean) <20%. Magra test or split test aims to determine DB or Dark Bean so that the quality of cocoa beans in percent can be known. This test can determine the percentage of low-quality and high-quality Edel cocoa beans. This DB is Dark Bean or black beans, or dark beans must be less than 20%. Some cocoa beans are purple, and some are white. Edel Cocoa beans should not be purple, and all the seeds must be white. If there are dark beans, it indicates that it is mixed with Bulk Cocoa. For preventive action in overcoming this, it is necessary to do edelization. Edelization is a type of Edel Cocoa in which there is Bulk Cocoa beside which will be ovulated to be made into Edel Cocoa.

The superior and inferior cocoa beans were separated in the Edel and Bulk cocoa bean picking test. The following is a part of inferior quality cocoa pods.

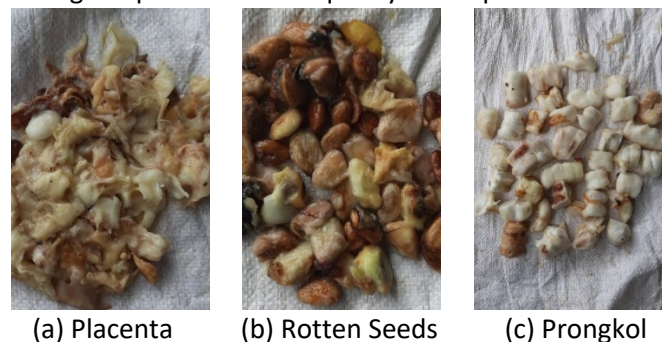


Figure 3. Inferior Cocoa Fruit Tampilan

In the figure above, it can be explained that (a) the placenta is the part in the middle of the cocoa pod which must be cleaned immediately at the time of picking in the garden; (b)

Rotten seeds that can occur due to pests or diseases and due to overripe when they are still on the tree which can be harvested but not harvested by the workers so that they rot on the tree; and (c) This prongkol is an unripe cocoa pod that has been harvested.

b. Cocoa Bean Fermentation

After weighing the production, the production is poured into the fermentation box, followed by closing of the cocoa beans in the fermentation box. At the time of pouring wet cocoa beans are grouped in the fermentation box based on each type of Edel and Bulk Cocoa. The capacity of the box is between 1.2 – 1.5 wet tons/box, but if the amount of production is small, the capacity in this box will be narrowed. Beans that have reached one box are leveled, filling in boxes 5 cm below the height of the box, after being flattened, the cocoa beans are covered with burlap sacks that have been moistened and labeled. This fermentation process is carried out purely naturally without any additional ingredients, only by using a cover with a burlap sack. The purpose of this fermentation activity is to bring out the true taste, and mostly if there is no stage of this fermentation in local or foreign cocoa. The existence of this fermentation process later, in the end, the pulp on the white cocoa beans will disappear by itself. For Bulk Cocoa, fermentation was carried out for four days, while for Edel Cocoa for three days. Edel Cocoa has a faster fermentation time than Bulk Cocoa because the Pulp in Edel Cocoa is thinner. Every day a reversal is carried out starting at 6 am from box number 3 to box number 4, box number 2 to box number 3, and from box number 1 to box number 2. Every 6 hours, temperature measurements are taken. And lastly, soak the cocoa beans. Cocoa is fermented for four days, followed by washing. Soaking is carried out for 4 hours, and after washing, the cocoa is transported to the drying floor for drying. Details of time and temperature in each box can be seen as follows:

Table 2. Time and Temperature for Fermentation.

| Box | I | II | III | IV |
|---------------------|-------------|-------------|-------------|-----------|
| Fermentation | 16 Hours | 24 Hours | 24 Hours | 22 Hours |
| Temperature | 25 C – 35 C | 35 C – 45 C | 45 C – 50 C | 45 – 50 C |

Source: PTPN XII Kendenglembu Plantation (2022)

c. Drying Cocoa Beans

After soaking, the first wet cocoa beans are transported to the drying floor for drying. Before the drying process, it must be ensured that cleanliness on the drying floor must be ensured. Then proceed with smoothing the wet cocoa beans on the drying floor by paying attention to a maximum thickness of 5 cm and a standard of 15 kg/m². The purpose of this drying process is twofold, namely (1) it is useful to reduce the water content because if there is still a lot of water, it will be prone to rot, fungus, and all kinds of diseases; and (2) to add flavor because cocoa, when exposed to ultraviolet rays from the sun, will give rise to a distinctive flavor and that is what buyers are looking for.

Drying is done in 7 hours when the weather is sunny. This drying process on average takes about 2-3 days (about 20 hours). In this drying process, the cocoa beans must be turned on the drying floor once every 1 hour. Drying can be carried out for several days until the cocoa is dry. Dry cocoa on the drying floor can take up to 10 days if it rains and will be covered with tarpaulin, which then when the cocoa beans are dry will be tested for water content using Aquaboy. Aquaboy is the name of a tool that can determine the remaining water content in cocoa beans. The standard for cocoa beans that are considered dry is if the cocoa beans have a moisture content of 7.5%. If in the sun drying process the moisture content has not reached 7.5%, it will be continued by putting cocoa beans into the cocoa dryer to help speed up the drying process. However, during the dry season and the weather is hot, the water content is

7.5% enough so that there is no need to go through the process in the cocoa dryer, and if possible 100% use sun drying. Sun drying is the drying of cocoa by using sunlight, while the principle of cocoa dryer blowing hot steam on the cocoa beans to dry quickly.

Concerning quality, drying using a sun and cocoa dryer has no effect. Drying that uses full sun is not optimal but less efficient because it takes too long. Drying with a sun dryer takes approximately two days while using a cocoa dryer only takes about 13-14 hours before the cocoa beans have become dry. Drying without using the sun can be done directly using a cocoa dryer.

d. Cocoa Bean Drying

Drying is done in several ways, namely (1) sun drying; and (2) mechanical combination sun drying. These two methods of drying cocoa beans are carried out considering economic value. The drying method uses a mechanical combination sun drying method using a machine called a cocoa dryer that uses fuel to drive the machine. For the process, namely cocoa beans from the drying floor that have been tested with the Aquaboy tool to determine the water content after drying, if it has not reached the 7.5% moisture content, it will be continued using the combination method. Cocoa beans are placed and leveled on a dryer tub with a capacity of 4.5 tons of wet. The standard thickness of cocoa beans in the dryer is 20 cm. Drying using a cocoa dryer uses a temperature of around 70°C until the moisture content reaches 7.5% and prevents cocoa beans from smelling smoke. Drying using a machine is carried out for approximately 15-24 hours, with details for the first drying for 6 hours at a temperature of 70°C, then the second 8 hours at 60°C, and the next drying for 10 hours at a temperature of 55°C until the moisture content reaches 7.5%. The reversal process at the drying stage is carried out automatically according to the predetermined time setting using a cocoa dryer and will be controlled by officers within 24 hours.

e. Tempering and Sorting Cocoa Beans





Cocoa beans that have dried and reached a moisture content of 7.5% will be tempered. Tempering means that dry cocoa beans need to be left or spread out (tempering) to neutralize the temperature inside the beans at room temperature overnight.

After that, each seed will have various standards and qualities. Sorting dry cocoa beans is done by selecting and classifying good dry cocoa beans with those that are not good according to the type of quality, size, and visual appearance. At this time, a sampling test will also be carried out using the Magra test. Sorting cocoa beans at the PTPN XII Cocoa Processing Factory Pagergunung Kendenglembu Gardens is useful for classifying cocoa beans based on quality A, B, C, and D. Sorting is done manually on a table using human labor, which is then selected and placed in their respective places and carried out cleaning dirt if there is still on the dry cocoa beans. This sorting is also useful when carrying out export activities to classify the quality of cocoa beans according to predetermined standards. Cocoa beans exported are the size of large cocoa beans because the bigger they are, the higher they can be used as export quality, and the price will also be higher. Separation of size quality in this sorting uses sieves with sizes of 1.4 cm², 1 cm², 0.6 x 1.2 cm², 0.5 cm². In addition, the calculation of bean count and moisture content (7.5%) and dry Magra (Edel) test was also carried out.

There are four types of quality cocoa beans, either Edel or Bulk, starting from type A, which is round, type B is getting lower, and type C is getting lower, to type D is spongy. 2 factors can be done so that all cocoa beans are included in type A quality, namely from cultivation and processing methods at the factory. A healthy cacao tree and its cacao beans are dripping with the possibility of going into type A quality up to 80% or 90%. It will be much more profitable for a company. Still, if fertilization and care are lacking, then good cocoa beans

that enter type A are only about approx. 40% or 50%, the rest will go to type B, C, and D quality. The type quality of cocoa beans can be seen in the following table:

Table 3. Cocoa Bean Quality Type.

| Quality Type | Standard | Examples of Cocoa Beans |
|--------------|-----------------------|---|
| A | DB 0-20% I-AA-FC/W |  |
| B | DB < 60% I-AA-FC/W |  |
| C | I-Sc-FC/W |  |
| D | Kepek-FC/W |  |

Source: PTPN XII Kendenglembu Plantation (2022)

f. Ready Warehouse (Packaging, Fumigation, and Delivery of Cocoa Beans)

The sorted cocoa beans will then be packaged in each sack containing a gross of 63.5 kg and a net of 62.5 kg. When checking samples in the packaging process, the more samples used, the better. Then the packaged cocoa bean products will be stacked in the Ready Warehouse. The stacking of these products is grouped based on the type of quality of dry cocoa beans with a maximum layout of 3 tons per lot in the warehouse, using a pallet so that it doesn't come into direct contact with the floor and given plastic so that it can maintain moisture.

After stacking the products on pallets and covering them with plastic, fumigation is carried out using EWS (Early Warning System) for warehouse pests (Zero insect). This Early Warning System is a countermeasure for pest attacks. Examples of giving fumigation such as a mouse being placed in a mousetrap and so on. The fumigation process was carried out for three days.

In the last process at the PTPN XII Pagergunung Cocoa Processing Factory, Kendenglembu Gardens, the delivery of cocoa production. Delivery of cocoa production based on marketing instructions on demand from consumers. The steps include re-weighing the sacks and confirming the number of sacks according to the booking order (BO) code. Furthermore, the warehouse officer must ensure that the vehicle is clean, the tarp does not leak, and it does not smell used as a base or cover when in the vehicle. And finally, the delivery invoice is made following the booking order instructions from the marketing department.

Marketing Management of Cocoa Beans at PTPN XII Kendenglembu Plantation

a. Marketing Mix of PTPN XII Cocoa Bean Products Kendenglembu Garden

The marketing mix is a set of marketing tools that can be controlled and combined by the company to produce the response desired by the target market (Mohamad & Rahim, 2021). According to Kotler & Keller (2016), it is explained that in the marketing mix, there are four elements of the marketing mix (Marketing Mix-4p), namely: Product, Price, Place, and Promotion. The explanation of each element of the marketing mix at PTPN XII Kendenglembu Plantation is as follows:

- Product

There are two types of dry cocoa beans produced by the PTPN XII Pagergunung Cocoa Processing Factory, Kendenglembu Garden, namely (a) Edel Cocoa (maroon color) and (b) Bulk Cocoa (green color). Edel cocoa is one of the best chocolates in the world, resulting from a cross between several varieties of cocoa. Edel Cocoa is cocoa widely used for certain cosmetic, pharmaceutical, and culinary products. Meanwhile, the bulk type of cocoa is widely used as the base material for cocoa powder or blocks.



Figure 4. Cocoa Fruits at PTPN XII Kendenglembu Gardens

Cocoa bean products produced by the PTPN XII Pagergunung Cocoa Processing Factory Kendenglembu Gardens are the result of processing from their plantations. They do not use cocoa production from the people because, in the production process, there are differences where if the people's cocoa production process is directly in the drying process while in PTPN XII Pagergunung Kebun Kendenglembu before entering the drying process, there is a first fermentation process which is useful to bring out the true taste and to remove impurities in the form of cocoa bean pulp. Edel Cocoa has large seeds but thin pulp, but Bulk Cocoa is the opposite.

PTPN XII Kendenglembu Plantation is committed to the quality of the produced cocoa bean products so that what is offered to consumers will be sold. An example that occurs in the field is that the cocoa bean product purchased by the consumer is the same as the initial product sample sent following the SOP from PTPN XII Kendenglembu Plantation.

Drying cocoa beans at the Cocoa Processing Factory PTPN XII Pagergunung Kendenglembu Gardens currently uses mechanical machine technology, namely a cocoa dryer, and no longer uses the manual method of smoking with firewood because it will affect the quality of the aroma produced. In addition, the taste and aroma testing are carried out by cocoa chocolate/cup taste experts who have regulated certifications worldwide, and these experts cannot judge subjectively.

Cocoa bean products produced by PTPN XII received an award in the top 50 in Cocoa Of Excellence which is an appreciation for producers of high-quality cocoa beans. The event is part of the 11th edition of the Salon Du Chocolat festival in Paris, France. Cocoa bean products produced by the PTPN XII Pagergunung Cocoa Processing Factory Kendenglembu Gardens already have certifications, including the Rainforest Alliance (RA) (an international non-profit organization that works at the intersection of business, agriculture, and forest to make responsible business the new normal), UTZ (more sustainable agriculture and better opportunities for farmers, their families, and our planet. The UTZ certification program enables farmers to use better cultivation methods, grow better crops, and generate more income.), SJH (halal assurance certification), TERA certificate (periodic re-testing of Measuring, Dosing, Weighing Equipment and Equipment (UTTP), and those used in trade), HACCP (Hazard Analysis Critical Control Point), and ISO 9001:2012. ISO 9001:2012 is an update related to ISO 9001:2008, which is a documented procedure and standard practice for system management that aims to ensure the suitability of a process and product (goods or services) to certain needs or requirements, where the specific needs or requirements are determined or specified by the customer and the organization.

- Price

The price of Edel and Bulk cocoa beans is different. Edel Cocoa is the most expensive cocoa. The type of product of Edel or dried noble cocoa beans is IDR 150,000/kg, while the type of product of dry Bulk Cocoa beans retail selling price is IDR 120,000/kg. If the purchase in large parties is a minimum quantity of 12.5 tons, the selling price can be IDR 90,000/kg for Bulk Cocoa beans. In contrast, for the Edel Cocoa bean product, if anyone is interested in purchasing with a large party, please contact the marketing department at the Head Office at PTPN XII Jalan Rajawali No. 44 Surabaya.

- Place

Cocoa Processing Factory PTPN XII Pagergunung Kendenglembu Gardens has two types of cocoa beans: Edel and Cocoa Bulk. Marketing of Edel Cocoa is prioritized for overseas (export) market share, while for Bulk Cocoa, the marketing area is mostly domestic (local). For dry cocoa beans of inferior quality, they are only marketed locally, while for exports, only products of superior quality. PTPN XII's Edel Cocoa and Bulk Cocoa commodities have export destinations to various countries, including Malaysia, Singapore, Thailand, Japan, the Netherlands, Germany, and the United States.

For the marketing of cocoa bean products, there is a separate marketing department at PTPN XII Head Office Jalan Rajawali No. 44 Surabaya. Besides that, this marketing is managed by a PTPN XII subsidiary, PT Rolas Nusantara Mandiri, which markets semi-finished products in packaging. Meanwhile, the PTPN XII Pagergunung Cocoa Processing Factory, Kendenglembu Plantation, only has responsibilities from seeding to delivery.

- Promotion

Promotional activities for the marketing of cocoa bean products at the PTPN XII Pagergunung Kendenglembu Cocoa Processing Factory are carried out in two ways, namely directly and indirectly. The direct promotion by the management of PTPN XII in collaboration with subsidiaries, namely PT Rolas Nusantara Mandiri and Doesoen Kakao. For PT Rolas Nusantara Mandiri, it focuses on promoting product marketing outside Banyuwangi and abroad. As for the promotion through Doesoen Kakao, it not only sells chocolate, processing, educational tours, and agrotourism. Doesoen Kakao is not just chocolate of sale, but more about the satisfaction of the environment with heritage value. While promotion is indirectly through collaboration with several stakeholders, one of which is through the Banyuwangi Regency Culture and Tourism Office by collaborating in holding events such as Gowes, Down Hill, Fashion Show, Gandrung Dance throughout Banyuwangi, several tournaments (volleyball, chirping mania, running), Trabas Banyuwangi, and Banyuwangi Festival to attract local culture. The management carries out all activities adapted to something booming in the community in the hope of not missing a moment. In addition, the innovation made by the management is by participating in the manufacture of sports jerseys and marketing them. PTPN XII Kendenglembu Gardens also cooperates with private gardens to exchange ideas in developing their products and cooperate with MSMEs to sell their products in the chocolate gallery. There are also innovations from management related to digital technology that has not been published to the public due to the COVID-19 pandemic.

b. SWOT Analysis of PTPN XII Cocoa Bean Products Kendenglembu Garden

SWOT analysis is one way to determine the business strategy used by the company to beat competitors to win the business competition, in its simplest form is if the company already knows the strengths and weaknesses in its own body and knows the strengths and

weaknesses of the opponent, it can be ascertained that the company can win the competition (Riadi et al., 2022). SWOT analysis helps companies determine the best strategy based on a business's strengths, weaknesses, opportunities, and threats. After analyzing all existing internal and external factors, the resulting S-O, W-O, S-T, and W-T strategies can be drawn up (Derama & Aransyah, 2022). SWOT Analysis of Cocoa Bean Products from Cocoa Processing Factory PTPN XII Pagergunung Kendenglembu Gardens can be seen as follows:

Table 4. SWOT Matrix.

| | | | |
|------|------|--|---|
| EFAS | IFAS | Strenghts <ul style="list-style-type: none"> - Better quality of cocoa pods - Quality control is maintained according to established standards - Has Rainforest Alliance, UTZ, HAS, TERA, HACCP, and ISO 9001:2012 certifications - Management always performs the controlling function on an ongoing basis (internal and external audit) - Management always refreshes HR (internal and external training) - Concern for the surrounding environment - The drying and drying process uses a cocoa dryer technology machine - Stakeholder policies from PTPN XII make it easier to market products at home and abroad | Weakness <ul style="list-style-type: none"> - Weather control still relies on local culture (rain handler) - State-bound corporate bureaucracy - Many processing activities still use manual labor |
| | | Opportunities <ul style="list-style-type: none"> - There is support from the Regency Government in developing regional potential - BUMN restructuring policy in the form of holding | S-O Strategy <ul style="list-style-type: none"> - Maintaining the consistent quality of cocoa fruit and bean products - Always renew certifications related to product quality on an ongoing basis - Maintain and develop audit control functions and human resources according to the times - Empowering and prospering the community around PTPN XII Kendenglembu Gardens - Develop and improve technological innovations in the drying and drying process to improve quality according |

| | to the times | |
|--|--|--|
| | - Broaden your horizons in terms of culture, commodities, and human resources | |
| | - Expanding marketing area | |
| Threats | S-T Strategy | W-T Strategy |
| - Cocoa processing technology innovation continues to develop | - Improving the processing system from upstream to downstream in a sustainable manner to compete in the world market share | - Develop and improve technological innovation in cocoa bean processing from upstream to downstream |
| - The cocoa quality license in each country is different | - Update and find out about each destination country's license for cocoa | - Bureaucracy from the government for PTPN XII is facilitated, especially in increasing production and quality, as well as expanding the marketing area of cocoa beans |
| - Worldwide competition with multiple assessments (sales audits, expansions, etc.) | - Increase the quantity and quality of production | |
| - Product competition from private companies (London Sumatra) should be considered | - Collaborating and collaborating with private companies in developing and maintaining cocoa commodities in the Glenmore area | |
| - The theft that occurred at PTPN XII Kendenglembu Gardens | - Taking preventive action by adding CCTV and tightening guards by the security forces around Kendenglembu Gardens | |
| - Illegal felling and burning of trees by the community | - Take preventive action by looking at BMKG data for weather anomalies and collaborating with Puslitkoka in controlling diseases or pests on cocoa commodities | |
| - Weather anomalies and diseases or pests in cocoa | | |

Source: Data Processing Results (2022)

5. Conclusion

Based on the results of the analysis that has been done previously, the researchers made several conclusions in this study as the research objectives include:

1. Human resource management at PT PTPN XII Kendenglembu Plantation, namely based on the status of workers in the field and plantation, there are three types of them (the status is daily freelance and wholesale, and there is no contract status for employees who are included in the organizational structure); Remuneration system for workers in the field (garden) namely wholesale and daily wages; Employee welfare in the form of training, educational scholarships, health services, and other programs; Development of a certain level at PTPN XII through the Management Trainee program with a minimum of 2 years working on the plantation, Talent Management is assessed from the performance assessment, and Career Planning is adjusted to the appraisal by HR during the field assessment.

2. Operational management of cocoa bean processing at PTPN XII Kendenglembu Plantation is carried out in stages, namely receiving and weighing cocoa beans; cocoa bean fermentation; drying cocoa beans; drying cocoa beans; tempering and sorting of cocoa beans; ready warehouse (packaging, fumigation, and delivery of cocoa beans).
3. Marketing management of cocoa beans at PTPN XII Kendenglembu Gardens is based on the 4P marketing mix, namely cocoa bean products produced by the PTPN XII Pagergunung Cocoa Processing Factory Kendenglembu Gardens, there are two types of dry cocoa beans, namely Edel Cocoa and Bulk Cocoa. The price of edel cocoa beans is the most expensive, sold in retail at IDR 150,000/kg, while the Bulk cocoa bean product is IDR 120,000/kg. For purchases of large parties with a minimum quantity of 12.5 tons, the selling price of Bulk Cocoa is IDR 90,000/kg, while Edel Cocoa bean products can contact PTPN XII marketing directly. Marketing of Edel Cocoa is prioritized for overseas (export) market share, while for Bulk Cocoa the marketing area is mostly domestic (local). As well as promotion of the marketing of cocoa bean products of PTPN XII Pagergunung Kendenglembu Gardens is carried out in two ways, namely directly and indirectly.

Based on the results of these conclusions, the following suggestions can be given:

1. Consistently maintain the quality of cocoa bean products.
2. Cocoa processing can be combined with manual labor and automation.
3. Collaborating with third parties or private companies in developing and maintaining cocoa commodities in the Glenmore area.
4. Maintain and develop the audit control function and human resources according to the times and continue to empower the community around the Kendenglembu plantation.

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