

THE DEVELOPMENT STRATEGY OF SUGAR CANE MANUFACTURE, PT MADUBARU YOGYAKARTA

Pengembangan Strategi Pabrik Gula, PT Madubaru Yogyakarta

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ABSTRACT

The Indonesian sugar industry is one of the plantation industries which is considered a commercial and strategic commodity. However, the national sugar industry has decreased in meeting national sugar needs. This decrease was due to internal problems and external problems in the sugar industry. Sugar Cane Manufacture, PT Madubaru is the only sugarcane-based private company in Yogyakarta. The study aims to identify internal and external factors that influence the development of PT Madubaru and analyze alternative strategies for the development of Sugarcane Manufacture Madukismo Yogyakarta. Sampling technique used is a purposive sampling method with 38 respondents consisting of eight experts and 30 internal company employees. The analytical method used is the Internal Factor Evaluation Matrix (IFE), External Factor Evaluation Matrix (EFE), and SWOT analysis (Strengths, Weaknesses, Opportunities, and Threats). The results show that the strategic position of Sugar Cane Manufacture, PT Madubaru development is in quadrant II (two). The strategic position shows that the strategy is directed at efforts to improve the weaknesses (Weaknesses) of PT Madubaru in order to be able to seize opportunities (Opportunities) that exist. The alternative strategy that can be applied in the development of PT Madubaru are increasing cash inflows by opening creditors and

outside investors, Raw processing Sugar to reduce the Cost of Production, continuing to work with Bina Sarana Tani to find new varieties to increase sugarcane productivity, expand markets with market penetration, Raw process sugar to optimize plant capacity, process Raw sugar to optimize sugar production and diversify products to increase funds.

Keyword: *business development, sugarcane, SWOT analysis*

ABSTRAK

Industri gula Indonesia merupakan salah satu industri perkebunan yang dianggap sebagai komoditas komersial dan strategis. Namun, industri gula nasional mengalami penurunan dalam memenuhi kebutuhan gula nasional. Penurunan ini disebabkan karena masalah internal dan masalah eksternal industri gula. Pabrik Gula, PT Madubaru merupakan satu-satunya perusahaan swasta berbasis tebu di Yogyakarta. Tujuan dalam penelitian ini adalah untuk mengidentifikasi faktor-faktor internal dan eksternal yang mempengaruhi perkembangan PT Madubaru dan menganalisis alternative strategi pengembangan PT Madubaru. Teknik pengambilan sampel menggunakan metode purposive sampling dengan jumlah 38 responden yang terdiri delapan pakar dan 30 karyawan internal perusahaan. Metode analisis yang digunakan adalah Matriks Evaluasi Faktor Internal (IFE), Matriks Evaluasi Faktor Eksternal (EFE), dan analisis SWOT (Strength, Weaknesses, Opportunities and Threats). Hasil penelitian menunjukkan bahwa posisi strategi pengembangan PT Madubaru berada pada kuadran II (dua). Posisi strategis tersebut menunjukkan bahwa strategi diarahkan pada upaya-upaya perbaikan terhadap kelemahan-kelemahan (Weakness) yang dimiliki PT Madubaru agar mampu untuk meraih peluang (Opportunities) yang ada. Alternatif strategi yang dapat diterapkan dalam pengembangan PG Madubaru adalah menekan Harga Pokok Produksi, terus bekerjasama dengan Bina Sarana Tani untuk menemukan varietas baru terhadap peningkatan produktivitas tanaman tebu, melakukan ekspansi pasar dengan penetrasi pasar, mengolah Raw Sugar untuk mengoptimal kapasitas pabrik, mengolah Raw Sugar untuk mengoptimalkan produksi gula dan melakukan diversifikasi produk untuk meningkatkan dana.

Kata Kunci: *pengembangan usaha, gula, analisis SWOT*

INTRODUCTION

The Indonesian sugar industry is one of the plantation industries that has received great attention as a commercial and strategic commodity. In the development of the sugar industry from the 1930s, Indonesia had reached 11% - 13%. Peak production once reached 3 million tons, and sugar exports once reached 2.4 million tons. This is supported by the ease of finding fertile land, the existence of a rotation system of planting areas, and the availability of an abundant workforce. After the change in the policy of the Dutch government to

change the function of planting rice and secondary crops, the existence of sugar cane plantations was increasingly receding. The number of sugar factories operating in Indonesia has decreased; from a total of 179 sugar factories, only 62 sugar factories remain, 52 factories are owned by state companies, and ten factories are owned by private companies (Dewan Gula Indonesia, 2013). In addition, in 2017, Indonesia became the second largest importer after China, with 4.2 million tonnes of sugar per year (United States of Agriculture, 2017).

In recent years, Indonesia has been experiencing a national sugar crisis. This sugar crisis is shown by a large amount of imported sugar, especially illegal imports that enter Indonesia. The national sugar crisis occurred because sugar mills in Indonesia faced various problems, one of which was PG's low performance in manufacturing and management. The occurrence of the national sugar crisis and the low performance of the sugar industry shows that current efforts are needed to improve the performance of the sugar industry in Indonesia.

In the last decade, the development of the national sugar industry has decreased especially in Indonesia. This decline was due to the inability to overcome various fundamental problems such as high production costs, low sucrose content in sugar cane, inefficiency in machine performance, sugar imports that did not match domestic demand, which caused an excessive market, and there was no synergy between ministries/agencies which ultimately led to on conflicts of interest (Tayibnapis et al., 2016). In addition, there are also external factors such as unpredictable weather and climate causing a decrease in sugarcane productivity, as experienced in China in 2012-2013 (Li & Yang, 2015).

The performance of a sugar factory in producing White Crystal Sugar (GKP) is influenced by the sugar factory's milling capacity and milled output. The higher the milling capacity of the sugar factory, the better the factory's performance. In addition to the milling capacity and the milled output of sugar factories, there are still many factors that affect the performance of sugar companies. Indonesia has several sugar companies both in Java and outside Java. The number of sugar companies or factories and the milling capacity of each sugar company or factory, as well as the milled products produced by the sugar factories, are as presented in Table 1.

Based on Table 1. It is known that PT Madubaru is one of the sugar companies that has the lowest milling capacity in Java. The data shows that in 2012-2013 there was a decrease in PT Madu Baru's sugar-milled yield of 9.53%, which means that PT Madu Baru's performance was said to be still low. This is due to the low milling capacity of 3,300 tons/day.

PT Madubaru is a company that operates the Madukismo Sugar Factory. PT. Madubaru has great potential and opportunities to grow and develop into a sugarcane-based agro-industry company. According to (Fahdli, 2014), the

company uses an overall cost leadership business strategy, a backward integration strategy, and related diversification in its business activities. Furthermore, currently, PT Madubaru is implementing GCG (Good Corporate Governance), which supports the company to develop and be sustainable in the long term.

Table 1. Number of Sugar Mills, Milling Capacity and Milled Yields in Indonesia in 2012-2013

No	Sugar Company/Sugar Factory	Sugarcane Manufacture (unit)	Mill Capacity (tonnes/day)	Milled Sugar Yield (tons)	
				2012	2013
Java					
1	PTPN IX	8	17,707	144,688	137,264
2	PTPN X	11	39,402	494,419	491,476
3	PTPN XI	16	39,201	409,072	400,258
4	PT Rajawali I	2	19,750	98,626	91,582
5	PT Rajawali II	5	14,000	246,564	228,954
6	PT Candi Baru	1	2,750	30,845	28,874
7	PT Madubaru	1	3,300	38,217	34,576
Non Java					
8	PT Kebon Agung	2	12,360	182,230	185,939
9	PT Industri Gula Nusantara	1	1,800	5,489	12,441
10	PT Laju Perdana Indah	2	4,000	49,333	59,615
11	PTPN II	2	7,162	41,506	31,167
12	PTPN VII	2	10,986	106,302	118,3311
13	PTPN XIV	3	6,840	33,785	42,325
14	PT Gunung Madu Plantation	1	12,473	190,842	180,000
15	PT Sugar Group	3	27,000	416,735	393,889
16	PT Gorontalo	1	8,500	31,849	26,395
17	PT Pemuka Sakti Manis	1	5,500	71,181	74,750

Source: Dewan Gula Indonesia (2013)

This problem is also felt by Sugar Cane Manufacture, PT Madubaru Yogyakarta. To face the current challenges of the ups and downs of the national sugar industry, Sugar Cane Manufacture, PT Madubaru Yogyakarta requires a strategy that takes into account the company's internal and external business environment at that time and in the future. Corporate strategy is a series of actions needed by managers to outperform company competitors and achieve superior profitability (Thompson et al., 2016). Strategy is needed by companies to gain a sustainable competitive advantage. Competitive advantage is the lifeblood of every company. With a competitive advantage, companies can attract and retain customers on an ongoing basis, easy to profit from, easy to repair or replace the assets they wear out; can develop new product and service offerings, can hire and train new employees as the business grows or when employee turnover; can re-engineer processes, can design new work methods, or buy new technology because of changes in market demand. In other words,

with a competitive advantage, the company will be able to survive in its business environment (Kenyon & Sen, 2015). The aims of this study were to 1) identify internal and external factors that influence the development of Sugar Cane Manufacture, PT Madubaru Yogyakarta and 2) analyze appropriate alternative strategies for the development of Sugar Cane Manufacture, PT Madubaru Yogyakarta.

RESEARCH METHOD

This research was conducted in 2018 and was conducted at one of the sugar companies, namely Sugar Cane Manufacture, PT Madubaru, which is located in Padokan Village, Tirtonirmolo Village, Kasihan District, Bantul Regency, Yogyakarta Special Region Province. The location determination was carried out purposively, namely deliberately, with the consideration that PT Madukismo is the only sugarcane plantation company that has a factory in Yogyakarta.

The sampling method for assessing the development strategy in this study was carried out by quota sampling because the number of employees allowed by the company to be used as respondents was 30-50 permanent employees. The number of samples for the development strategy analysis in this research was carried out as many as 8 (eight) stakeholders and 30 permanent employees from eight departments, namely seven respondents from accounting and finance, four respondents from manufacturing, seven respondents from plants, five respondents from HR, four respondents from the installation department, three from the marketing department, two from the internal control unit and three from the spirits factory.

The data in this study consisted of primary data obtained through interviews with selected stakeholders and employees using a questionnaire. At the same time, secondary data is obtained from documents or internal company data, as well as literature studies, used to support primary data.

Descriptive analysis

The descriptive analysis focuses on the identification of internal and external environmental factors within the company environment. This identification was carried out through interviews with parties related to the development strategy of Sugar Cane Manufacture, PT Madubaru. Various information obtained is then analyzed and described in detail, then will be used to develop a development strategy that is appropriate to the conditions of the company.

SWOT Analysis

SWOT analysis was carried out by looking at internal and external factors that could influence the development of Sugar Cane Manufacture, PT Madubaru. The IFAS/EFAS tables are used to identify and formulate strategic factors within the framework of strengths, weaknesses, opportunities, and threats, as well as to determine business positions which are then formulated using the Internal-External Matrix model. The stages for determining the score in the IFAS/EFAS table include (Rangkuti, 2017):

- a. Making internal environmental strategic factors includes strengths and weaknesses, while external factors include opportunities and threats.
- b. Determination of strategic factor weights with a scale ranging from 0.0 (not important) to 1.0 (very important).
- c. Calculate the rating for each factor by giving a scale of 4.0 if the opportunity is big to 1.0 if the opportunity is smaller, and giving the rating the threat value is the opposite.
- d. Multiply the weight by the rating to get the weighting factor (score).
- e. Add up the scores to get the total weighted score for the company or industry concerned, where the total score must be one.

Determination of alternative development strategies for Sugar Cane Manufacture, PT Madubaru is carried out using a matrix SWOT analysis model based on data obtained from the IFAS/EFAS tables. The following are possible alternative strategies that can be implemented for the development of Sugar Cane Manufacture, PT Madubaru in the City of Yogyakarta (Rangkuti, 2017):

- a. SO strategy is a strategy to use the strengths you have to take advantage of opportunities.
- b. The ST strategy is a strategy by using the power you have to avoid or reduce threats.
- c. WT strategy is a strategy directed at minimizing weaknesses to avoid or reduce threats.
- d. WO strategy is a strategy to improve weaknesses by taking advantage of opportunities.

RESULT AND DISCUSSION

Descriptive of Respondents

PT Madubaru is the only sugar factory and alcohol/spirits factory in the Province of the Special Region of Yogyakarta in 1955 by order of Sri Sultan Hamengku Buwono IX, which is tasked with making the national food procurement program successful, especially granulated sugar. The vision of PT Madubaru is to make PT Madubaru a superior Agro-Industry company in Indonesia with make farmers partners. The mission of PT Madubaru is as

follows producing quality Sugar and Ethanol to meet the demands of society and industry in Indonesia, producing products by utilizing advanced and environmentally friendly technology, managing professionally and innovatively, providing excellent customer service, and prioritizing partnerships with farmers, develop new products/businesses that support the core business and placing employees and other stakeholders is critical to creating corporate excellence and achieving shareholder values.

PT Madubaru is a labor-intensive company that accommodates many workers from the Special Region of Yogyakarta Province. The primary production of PT Madubaru is granulated sugar with the quality of SHS IA (Superior Head Sugar) or GKP (White Crystal Sugar). The quality of its production is monitored by P3GI (Indonesian Sugar Plantation Research Center) Pasuruan. The by-products are Pure Alcohol with a minimum content of 95% and Burnt Spirits with a content of 94%. The quality is monitored by the chemical research center of the Ministry of Industry and PT Sucofindo Indonesia.

Eight respondents were selected, namely the expert staff director, head of accounting, head of finance, head of marketing, head of human resources, head of the plant, and head of manufacturing and installation of PT Madubaru PG Madukismo.

Table 2. Characteristics of Respondents

No	Position	Sex	Length of Employment (years)
1	Director Expert Staff	Male	27
2	Head of Accounting Department	Male	27
3	Head of Finance Department	Male	12
4	Head of Marketing Department	Female	11
5	Head of Human Resources Department	Male	8
6	Head of Planting	Male	14
7	Head of Manufacturing staff	Male	32
8	Head of Installation Staff	Male	9

Source: Secondary Data, 2018

Identification of Internal Factors and External Factors

Internal environmental analysis is an analysis carried out on situations that occur within the company. This analysis identifies the strengths and weaknesses that form the basis for the company's strategy. The IFAS (Internal Factor Analysis Summary) matrix is used to evaluate these internal factors. External environment analysis is intended to identify opportunities that need

attention and identify threats that need to be anticipated. The external analysis used to evaluate the company's external factors related to the opportunities and threats that are owned by the company used the EFAS matrix (Eksternal Factor Analysis Summary).

Internal Factor

Internal factors are components or environmental variables that originate or are within the company. Internal factors consist of strengths and weaknesses. The results of the identification of PT Madubaru's internal factors obtained 14 factors, namely eight strengths and six weaknesses. These factors can be seen in Table 3.

Table 3. Internal Factor of PT Madubaru

Internal Factor	Weight	Rating	Score
Strength			
Sugar Quality SHS IA (Superior High Sugar)	0.075	3.58	0.27
Have a Diversified Business	0.071	3.32	0.23
Consumer Loyalty	0.067	3.47	0.23
Optimal Customer Service	0.066	3.47	0.23
Medium Factory Capacity	0.055	3.03	0.17
Experienced and Competent HR	0.057	3.18	0.18
There is HR Development for Employees	0.057	3.18	0.18
Has a Partnership Program With Farmers	0.073	3.42	0.25
Total Score			1.74
Weaknesses			
Cash Inflow/Limited Funds	0.079	3.74	0.30
High Cost of Production (HPP)	0.081	3.68	0.30
Low Productivity Performance of Partnership Programs With Farmers	0.082	3.79	0.31
Sugar Production Capability is Not Optimal	0.082	3.79	0.31
The Factory-Installed Capacity is Not Yet Optimal	0.081	3.68	0.30
Unequal Marketing Activities	0.076	3.47	0.27
Total Score			1.78
Strength - Weakness			-0.04

Strength

The strength factor that is the main key is the quality of SHS IA sugar (Superior High Sugar). The quality or quality of sugar produced by PT Madubaru has gone through trials and certification by the Indonesian National Standard (SNI). Besides that, it has also obtained ISO 2015 and has been

certified Halal by MUI Quality. PT Madubaru's SHS sugar production average ranges from $\pm 44,000$ - $57,000$ tons per year with a yield of 6.15-7.03% at a factory capacity of 3,500 tons of cane per day (TCD). The quality of the sugar is supported by the existence of a partnership program with farmers so that the availability and quality of the product are able to meet customer desires. PT Madubaru's sugar products have a slightly yellow color. This type of sugar color is characteristic of Madukismo (MK) sugar and is liked by customers. In addition to product quality that is in accordance with customer wishes, the existence of post-sales services in the form of returns or replacements if a broken retail sugar package is found and there are discounts and bonuses for customers who repurchase in large quantities causes PT Madubaru customers to be satisfied with MK products so that consumers will continue to make repeat purchases and become a loyal customer. The average customer of PT Madubaru has been a customer for more than five years. This is reinforced by the statement (Chandra & Santoso, 2021; Dewa & Safitri, 2020; Sheu, 2022) that service quality and customer satisfaction have a significant positive effect on customer loyalty. Apart from producing sugar, PT Madubaru has by-products in the form of Pure Alcohol (95% Concentration) and Burnt Spirit (94% Concentration), which come from PS. Madukismo with a total output of ± 3 million liters/year. The existence of business diversification will increase the company's income so that the business can survive until now (Li, 2021; Nguyen, 2021). PT Madubaru also prioritizes the quality of human resources through regular training for HR and giving appreciation to employees who excel. The types of training conducted by PT Madubaru include external training or symposiums or seminars, career path training, in-house training, comparative study, and finally, consultation and assessment. With this training, employees are expected to have competence and commitment so as to provide the best performance. According to (Adnan, 2022; Asharini, 2018; Singh, 2022), work commitment will affect employee performance, so the higher the competency and work commitment, the higher the employee performance.

Weakness

One of the key success factors for the performance of the partnership program is the productivity of the farmers' sugarcane crops. Plant productivity determines how much sugar production is produced. The productivity of the partnership program with farmers achieved by the company is still low compared to its competitors. This is mostly due to various factors such as the use of production inputs that are less than optimal, weather factors, and increasingly narrow land (Aparecido, 2021; Cardozo, 2018; Hartatie et al., 2021). The low performance of the partnership program causes a shortage of raw material suppliers, so the resulting product is not optimal. A shortage of sugarcane raw materials will cause factory inefficiency to be even greater. PT

Madubaru has a factory-installed capacity of 3,500 tons of sugarcane per day, but the factory is only able to use its capacity of 2,800-3,000 tons of sugarcane per day. This will lead to higher production costs and production costs. In 2017, PT Madubaru's sugar production was only able to reach the target set by the company of 75%. The lack of sources of raw materials is due to the fact that the company has limited funds to provide land and sugar cane nurseries (starting from providing staple seeds, grandma seeds, mother seeds, flat seeds, and sugarcane for milling) before they can fully operate. The weak factor of the product produced is not optimal, causing the company to not increase its product marketing expansion to traditional markets or outside the city widely. The company still depends on the worth of mouth of loyal consumers.

External Factor

Table 4. External Factor of PT Madubaru

External Factor	Weight	Rating	Score
Opportunity			
The Increasing Population in Indonesia	0.095	3.47	0.33
The Opening of Credit/Investor Opportunities	0.094	2.92	0.27
People's Purchasing Power Increases	0.091	3.24	0.30
Sugar and Alcohol Markets are Still Open	0.091	3.42	0.31
Existence of Waste Treatment Technology	0.083	3.34	0.28
The Bargaining Power of New Entrants is Weak	0.084	3.11	0.26
There is a Government Policy Regarding the Assignment to Process Raw Sugar	0.103	3.74	0.38
Total Score			2.13
Threat			
Government Policy	0.063	3.29	0.21
A. Import Tarif Policy of 20%			
B. Food Self-Sufficiency Policy			
C. Food Self-Sufficiency Policy			
D. Het Policy (Rp 12,500)			
High Bargaining Power of Suppliers	0.066	3.18	0.21
High Land Competition	0.056	3.16	0.17
Fluctuating Prices	0.059	3.05	0.18
Climatic Conditions are Erratic and Difficult to Predict	0.063	3.16	0.20
Competition With Imported Sugar and Refined Sugar	0.052	3.05	0.16
Total Score			1.13
Opportunity - Threat			1.00

Table 4. above show external factors of PT Madabru. External factors are components or environmental variables that originate or are outside the company. Internal factors consist of strengths and weaknesses. The results of the identification of PT Madubaru's internal factors obtained 13 factors, namely seven opportunity factors and six threat factors.

Opportunities

There is a government policy through the Regulation of the Minister of Industry Number 10/M-IND/PER/3/2017 which states that imported raw sugar to be processed into GKP (special assignment of stabilizing consumption sugar prices) is an opportunity factor that can be utilized in the development of the sugar industry, especially companies. (Azhari et al., 2016) Stated that an industry that takes good advantage of opportunities will be able to survive in competition and encourage development.

The increase in Indonesia's population, in line with the increase in sugar consumption, is also an opportunity for every sugar factory to continue to produce to meet national needs (Sugiyanto, 2007). This is because sugar is a food ingredient that is difficult to replace with other substitute products. Based on the (Kementerian Badan Usaha Milik Negara Republik Indonesia, 2018) estimates that the national demand for sugar is 6.29 million tons, while national production is only 2.09 million tons. Of the 2.09 million tons, private sugar factories were only able to contribute 954 thousand tons.

Supported by the people's purchasing power and market demand for sugar which increases every year, any amount of sugar produced by any sugar factory will sell quickly (fast moving) and be absorbed by the market. In addition to direct consumption, the increasing number of food processing industries will cause the national demand for sugar to increase. According to data (Agency, 2018), the contribution of the food processing industry increased from 6.14% in 2017 to 6.31% in 2018.

In addition, the opportunity for credit/investors to open in the sugar industry will help companies to develop their businesses (Dang, 2022)

The weak bargaining power of new competitors also makes it easy to optimize the company's strategy (Antai & Mutshinda, 2021; Ibrahim, 2020). The existence of technological developments also has an influence on the utilization of sugar factory waste. This will provide added value to the company or the surrounding community (Li, 2021).

Threats

Current government policies greatly affect the sustainability of the current sugar industry. The import tariff policy of 25% is deemed unable to protect sugar farmers and the sugar industry. This can be seen from the large amount of imported sugar, such as refined sugar, which floods the sugar

market in Indonesia. In addition, according to (Ardhiani, 2017), the government does not consider the timing of the supply of imported sugar to the local market. Sugar is imported during the milling season, so the factory experiences a supply surplus. There is a government policy regarding self-sufficiency in other foods, such as rice, corn, and soybeans which have an impact on the sustainability of the sugarcane crop (Kementerian Badan Usaha Milik Negara Republik Indonesia, 2018).

According to (Irawan, 2015), many sugarcane farmers switch to rice crops because rice plants produce IDR 3.5 million per hectare twice a year. Meanwhile, sugar cane only produces IDR 3 million per hectare once harvested in a year. This is supported by the Presidential Decree No. 5 of 1998, which states that farmers are no longer required to plant sugar cane on their land but are given the freedom to cultivate other crops.

The high dependence on the raw material of sugarcane of the people causes the bargaining power of suppliers to be very strong and significantly affects the sustainability of the sugar factory. This is due to the increasingly narrow sugar cane land, especially on Java Island, and the high competition for land with other strategic commodity crops. The area of domestic sugar cane continues to decrease by an average of -2.36% from 2013 to 2017 (Purwono, 2018).

Climatic factors also greatly affect the productivity and yield of the resulting sugar cane. According to (Hartatie et al., 2021; Rochimah et al., 2015) states that if more rainfall occurs, especially during ripening, the plant weight is large, shoots grow more, and sugarcane productivity is higher, but the yield produced by sugarcane will be smaller. The low weight and yield greatly affect the demand for raw materials for sugar factories.

In addition, the policy of the Indonesian Ministry of Trade number 7 of 2020 regarding HET (Highest Retail Price) for sugar. The highest retail price for white crystal sugar is set at IDR 12,500 per kilogram. This policy also causes losses for farmers and the sugar industry. This policy causes the income margins obtained by farmers and companies to decrease. According to the Head of Marketing at PT Madubaru, the retail price of White Crystal Sugar (GKP) fluctuates according to market prices. Maximum stability for a month. This price will not be adjusted to the Cost of Production issued by the company.

Business Development Potential of PT Madubaru

Based on the results of the evaluation in Figure 1. which has been carried out using the SWOT diagram, show that the position of PT Madubaru's business development strategy is in quadrant II (two). This strategic position indicates that the Tanggamus development strategy is directed at efforts to improve Weaknesses in order to be able to seize existing Opportunities. The

strategy applied is the Weakness-Opportunities strategy (WO Strategy). The strategy that needs to be done is to minimize internal weaknesses to seize opportunities. The results of the study (Lukito & Mustamu, 2013) say that the strategies that are still relevant to be used by national sugar distributors are market development and market penetration strategies to increase sales turnover.

IFAS-EFAS Matrix

Table 5. SWOT Matrix Model

INTERNAL FACTOR	Weaknesses (W)
	<ol style="list-style-type: none"> 1. Cash inflow/limited funds 2. High Cost of Production (HPP) 3. Low productivity performance of partnership programs with farmers 4. Sugar production capability is not optimal. 5. The factory-installed capacity is not yet optimal. 6. Unequal marketing activities
EXTERNAL FACTOR	Strategy W-O
Opportunities (O)	
<ul style="list-style-type: none"> • The increasing population in Indonesia • The opening of credit/investor opportunities • People's purchasing power increases. • Sugar and alcohol markets are still open. • Existence of waste treatment technology • The bargaining power of new entrants is weak. • There is a government policy regarding the assignment to process Raw sugar. 	<ul style="list-style-type: none"> • Increasing cash inflow by opening up creditors and outside investors (W1, O1, O2) • Received assignment to process Raw sugar to reduce Cost of Production (W2, O7) • Continue to work with Bina Sarana Tani to find new varieties to increase the productivity performance of the partnership program (W3, O5) • Carrying out market expansion by market penetration (W6,O1,O3,O4,O6) • Received assignment to process Raw sugar to optimize factory capacity (W5, O7) • Received assignment to process Raw sugar to optimize sugar production (W4, O7) • Conducting business diversification to increase funds (W1, O5, O7)

Alternative development strategies for Sugar Cane Manufacture, PT Madubaru City of Yogyakarta can be identified by using the IFAS-EFAS SWOT matrix. Table 5. shows various alternative development strategies for Sugar Cane Manufacture, PT Madubaru City of Yogyakarta, which can be formulated based on the SWOT analysis model. The strategy formulation is obtained based on the combined results of analysis of internal and external strategic factors consisting of strengths, weaknesses, opportunities, and threats. Analysis of determining the strategy with the SWOT matrix model using data from the IFAS and EFAS from Table 5. above.

Increasing Cash Inflow/Restricted Funds by Opening Up Creditors and Outside Investors

PT Madubaru really needs very expensive investment capital. PT Madubaru is very limited in terms of sugarcane land, so PT Madubaru has to partner with farmers. PT Madubaru's land investment costs are very high due to high land rental costs, especially in Java. Logistics costs are also high because the locations of the sugarcane plantations are scattered. In addition, the investment costs for sugar factories are also very high. With the high cost of capital for the sugar industry, PT Madubaru really needs investors or credits that can help with this capital problem. One of them is investment from banks or government revitalization, which provides capital loans for companies (Rahayu et al., 2020; Shen, 2022).

Government Policy Assignment to Process Raw Sugar

There is a government policy through the Regulation of the Minister of Industry Number 10/M-IND/PER/3/2017 which states that imported raw sugar to be processed into GKP (special assignment for stabilizing the price of consumption sugar) is no longer given to refined sugar companies, but is given to sugar companies. And sugarcane-based development is one of the investment incentives. In addition, it is necessary to reduce raw sugar import tariffs and increase import quotas which will have an impact on increasing sugar production (GKP and GKR) in the short term (Andriani et al., 2020). This policy is very helpful for factories that are unable to meet their factory capacity. The use of field capacity (idle capacity) by processing raw sugar in addition to increasing sugar production also causes the fixed costs per Kg to be smaller, so the cost of production (HPP) is also getting smaller.

Cooperate with Bina Sarana Tani to Find New Varieties

Superior variety seeds will be able to increase PT Madubaru's low productivity (Rahayu et al., 2020). This was also carried out by PT Madubaru in collaboration with Bina Sarana Tani to produce a superior variety of seeds to be able to deal with the constraints that exist on the farm. PT Madubaru must

continue to optimize the R&D division by recruiting human resources who have the ability to carry out scientific research such as the ability to calculate efficiency, improve the quality of raw materials, including increasing sugarcane yields, how to increase productivity, energy efficiency, cutting and hauling systems.

Expanding the Market by Penetrating the Market

Increasing the expansion of marketing activities for both one-kilo products and 50-kilo sugar products is not only within the scope of Jogja but also outside Java. Lukito & Mustamu, (2013) said that the strategies that are still relevant to be used by national sugar distributors are market development and market penetration strategies to increase sales turnover. This can be done because there is an opportunity for an increase in population, the opening of the sugar market, high public purchases, and also an increase in the food and beverage industry. Market development can be done by utilizing information technology, namely the internet (Malik et al., 2018).

In addition, the added value of these products must be done in order to be competitive with competitors. Improving the quality of products that are consumer needs is the key so that product quality dimensions can improve the order winners (Fauzi, 2021; Pudyastuti et al., 2019; Sastra & Baihaqi, 2021; Tjahjaningsih, 2020). Maintaining and increasing the best cost provider not only to 50 kilos of products but also to one kilo of retail sugar products. This strategy is the right strategy to survive in the national sugar industry. Apart from being the best cost provider strategy, the strategy used is de-commodity. That is, the product is focused on the customer. One kilo of retail sugar products must be adjusted to the wishes of the customer (customer orientation) in terms of taste, color, and packaging form.

Diversify the Business to Increase Funds

Further improvement is needed for factory waste processing which is able to provide additional income for the company (Wang, 2019), for example, into bioethanol, tissue paper, or other things that have not been done by PT Madubaru. PT Madubaru must continue to optimize its R&D division by establishing a special division that specifically handles environmentally friendly waste management and develops this into a new business.

The Best Development Strategy Determination of PT Madubaru

Based on results of observations and discussions in choosing a development strategy Sugar Cane Manufacture, PT Madubaru, PT Madubaru Yogyakarta, is an alternative top priority that is government policy assignment to process raw sugar. Based on the realities in the area study, there is a government policy through the Regulation of the Minister of Industry Number

10/M-IND/PER/3/2017 which states that imported raw sugar to be processed into GKP (special assignment of stabilizing consumption sugar prices) is an opportunity factor that can be utilized in the development of the sugar industry, especially PT Madubaru. The policy of assigning a raw sugar factory can fulfill the factory's field capacity (idle capacity). Government assignment permits help increase sugar production, reduce fixed costs per Kg, and increase the efficiency of Cost of Production (HPP).

In order to improve business development and company performance, PT Madubaru can implement the numerous alternative development methods that have been discussed. Increased capital support or cash inflow is achieved by establishing creditors and outside investors so that the company has the funding capability related to the provision of fertilizers, superior sugarcane seeds, and alsintan, increasing diversification and the downstream of sugar products and their derivatives, and of sugarcane agricultural land, in order to achieve production efficiency. Moreover, raw sugar is processed to lower production costs and raise industrial productivity. In order to identify novel kinds that would boost sugarcane plant productivity and yield, there is an urgent need for increased engagement with Bina Sarana Tani.

CONCLUSION AND SUGGESTION

Conclusion

Sugar Cane Manufacture, PT Madubaru's strategy development is influenced by internal factors, including SHS IA (superior high sugar) quality, business diversification, consumer loyalty, optimal customer service, moderate factory capacity, experienced and competent human resources, human resource development for employees, has a partnership program with farmers, limited cash inflow/funds, the cost of production (HPP) is still high, the productivity performance of the partnership program with farmers is still not low, sugar production capacity is not optimal, factory installed capacity is not optimal, and marketing activities are uneven. In comparison, external factors include government policies, including a 25% import tariff policy, food self-sufficiency policy, freedom of cultivation policy, and HET policy (Rp 12,500), high bargaining power of suppliers, high competition for land, fluctuating prices, uncertain and unpredictable climate conditions, and competition from imported sugar and refined sugar.

The position of PT Madubaru is in quadrant II, which is stable. This position indicates the development strategy that must be carried out is to use the Weakness-Opportunity (WO) strategy, which is to minimize weaknesses through improvements to of existing weaknesses in order to seize or take advantage of existing opportunities.

Suggestion

PT Madubaru can implement the numerous alternative development strategies that have been discussed to improve business development and company performance. In order for the company to have the funding capability related to the supply of fertilizers, superior sugarcane seeds, and alsintan, increasing diversification and the downstream of sugar products and their derivatives, and of sugarcane agricultural land, in order to achieve production efficiency, increasing capital support or cash inflow is carried out by opening creditors and outside investors. The processing of raw sugar is another method used to lower manufacturing costs and boost factory output. The policy of assigning a raw sugar factory can fulfill the factory's field capacity (idle capacity). Government assignment permits help increase sugar production, reduce fixed costs per Kg, and increase the efficiency of Cost of Production (HPP). It is absolutely necessary to work more closely with Bina Sarana Tani to identify new kinds that would boost sugarcane plant production and yield.

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