STUDY OF THE IMPACT OF SEAWEED BUSINESS DEVELOPMENT ON COASTAL COMMUNITY EMPOWERMENT (CASE STUDY: CORPORATE SOCIAL RESPONSIBILITY PROGRAM OF PT. BHUMI JATI POWER IN JEPARA DISTRICT, CENTRAL JAVA PROVINCE)

Kajian Dampak Pengembangan Usaha Rumput Laut Terhadap Pemberdayaan Masyarakat Pesisir (Studi Kasus: Program *Corporate Social Responsibility* Pt. Bhumi Jati Power Di Kabupaten Jepara, Provinsi Jawa Tengah)

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ABSTRACT

The potential of fishery resources in Jepara Regency is quite large, especially for the development of fisheries cultivation, however the level of welfare of the coastal community of Jepara which is still minimal, in addition to the lack of development of cultivation development centers that are able to drive the local economy based on superior commodities. The objectives of this study are: (1) to conduct a study of the impact of seaweed business development through the CSR program on the empowerment of the coastal community of Jepara; (2) to assess the sustainability status of the seaweed business development program; and (3) to determine effective strategies for the sustainability of the seaweed business. The research method is carried out through a quantitative and qualitative descriptive approach. The impact study is carried out through scoring with a Likert scale approach to the variables of empowerment aspects, while the assessment of sustainability status is carried out through a multidimensional scaling (MDS) approach with the Rap-Fish ordination technique. The study was conducted in Bondo Village, Bangsri District, Jepara Regency from 2-14 December 2024. The results of the data analysis concluded that the CSR program for developing seaweed businesses had a positive impact on aspects of community empowerment, especially in aspects of production and the environment, economic aspects and social-institutional aspects. Meanwhile, the results of the sustainability analysis showed that this program has a sustainable category with an index value of 86.25. The strategy that needs to be intervened in the long term is an aggressive strategy, namely focusing more on optimization efforts in encouraging existing strengths and utilizing opportunities to boost business development performance

Keywords: Aquaculture, CSR, Empowerment, Seaweed, Sustainability Status

ABSTRAK

Potensi sumber daya perikanan di Kabupaten Jepara cukup besar terutama untuk pengembangan budidaya perikanan, namun demikian tingkat kesejahteraan masyarakat pesisir Jepara yang masih minim, disamping itu belum berkembangnya sentral pengembangan budidaya yang mampu menggerakan ekonomi lokal berbasis komoditas unggulan. Tujuan penelitian ini adalah : (1) melakukan kajian dampak pengembangan usaha rumput laut melalui program CSR terhadap pemberdayaan masyarakat pesisir Jepara; (2) menilai status keberlanjutan program pengembangan usaha rumput laut; dan (3) menentukan strategi efektif untuk keberlanjutan usaha rumput laut. Metode penelitian dilakukan melalui pendekatan deskriptif kuantitatif dan kualitatif. Kajian dampak dilakukan melalui skoring dengan pendekatan skala likert terhadap variabel-variabel aspek pemberdayaan, sedangkan penilaian status keberlanjutan dilakukan melalui pendekatan *multidimensional scalling* (MDS) dengan tekni ordinasi Rap-Fish. Penelitian dilakukan di Desa Bondo Kecamatan Bangsri Kabupaten Jepara mulai tanggal 2 – 14 Desember 2024. Hasil analisis data menyimpulkan bahwa program CSR pengembangan usaha rumput laut memberikan dampak positif terhadap aspek pemberdayaan masyarakat terutama pada aspek produksi dan lingkungan, aspek ekonomi dan aspek social – kelembagaan. Sementara hasil analisis keberlanjutan menunjukkan bahwa program ini memiliki kategori berkelanjutan dengan nilai indeks 86,25. Adapun strategi yang perlu diintervensi dalam jangka adalah strategi yang bersifat agresif yakni lebh fokus pada upaya optimaliasi dalam mendorong kekuatan yang dimiliki dan memanfaatkan peluang untuk menggenjot kinerja pengembangan usaha.

Kata Kunci: Budidaya, CSR, Pemberdayaan, Rumput Laut, Status Keberlanjutan,

INTRODUCTION

Jepara Regency is one of the coastal regencies in Central Java Province that has quite large aquaculture resources. The aquaculture production of Jepara Regency, each for pond cultivation is 1,319 tons, freshwater aquaculture production is 4,768 tons, and seaweed cultivation is 19,321 tons (BPS Jepara, 2019). Judging from the level of welfare of the main fisheries actors, it is also not optimal, this can be seen from the Fishermen's Exchange Rate (NTN) which still needs to be improved. In addition, the minimal utilization of the economic value of aquaculture resources can also be seen from the fact that fish farming centers have not been built collectively, and are integrated by encouraging the role of community empowerment.

The lack of government funding to intervene in community empowerment programs is considered to be the main cause of the suboptimal utilization of existing resources. Thus, there needs to be a collaborative effort with multiple parties, especially the role of the private sector by encouraging financing through the Corporate Social Responsibility (CSR) program. PT. Bhumi Jati Power PLTU Tanjung Jati B units 5 and 6 in 2021 began launching a CSR program that focuses primarily on developing fisheries-based businesses by collaborating with the Jepara Brackish Water Aquaculture Center (BBPBAP) as a technical assistant. Based on the results of a feasibility study conducted by the BBPBAP Jepara Research Team, it was concluded that a suitable location for seaweed development is in the waters of Bondo, Bangsri District, Jepara Regency with a development concept recommendation focused on the integrated aquaculture business concept. This concept is expected to be able to create an efficient business ecosystem, so that it is more effective in efforts to encourage community development and local economic movement (BBPBAP Jepara, 2021).

Referring to various previous studies which concluded that CSR programs in Indonesia are generally still considered instant projects and only focus on fulfilling social interests, not on community development efforts. This condition is a common cause of

unsustainable CSR programs, because they are more on a project-based approach (Cocon, 2020). According to Saidi and Abidin (2004: 59-60), a company not only has economic responsibilities but also legal, ethical, and philanthropic responsibilities. Philanthropic responsibility (be a good citizen); In addition to companies having to make a profit, obey the law and behave ethically, companies are required to be able to make contributions that can be felt directly by the community. The aim is to improve the quality of human life and the environment. Considering this, in implementing the CSR program, PT. Bhumi Jati Power has gone through a comprehensive planning stage by involving the interactive participation role of the community as an important part in encouraging community development efforts. This research is very important in order to: (1) conduct a study on the impact of seaweed business development through the CSR program on the empowerment of coastal communities in Jepara; (2) assess the sustainability status of the seaweed business development program; and (3) determine an effective strategy for the sustainability of the seaweed business.

RESEARCH METHODS

This study uses qualitative and quantitative descriptive research methods. Referring to Mulyadi's opinion (2010) that the qualitative approach tries to describe the phenomena or factual conditions that occur, while the quantitative approach is carried out through data analysis to produce research conclusions through statistical data processing in this case the influence of CSR impacts on the community's economy (. Research data and information are sourced from primary data and secondary data. Primary data were obtained through distributing questionnaires and in-depth interviews with 25 respondents who are seaweed farmers and processors, while secondary data were obtained through literature studies and document reviews at related agencies. The data analysis method to map community perceptions of the impact of the CSR program was carried out through scoring with a Likert scale approach (Sugiono, 2006). Meanwhile, to assess the sustainability status, the Rap-Fish ordination technique was used through the Multi Dimensional Scaling (MDS) method (Kavanagh, 2001). Meanwhile, to determine the strategy, a quantitative SWOT analysis was carried out (Rangkuti, 2014).

RESULT

A. Program Impact Analysis

Data and information collection was conducted on 25 key respondents, 20 respondents each from Jaya Samudra seaweed farmers (Pokdakan), and 5 respondents from Jaya Samudra processing and marketing groups (Poklasar). The results of the analysis of public perception data on attributes in 3 (three) indicators of the impact of the CSR program, namely production and environmental aspects, economic aspects, and socio-institutional aspects, are presented in Table 1.

Table 1. Perception of the Impact of the Seaweed CSR Program on Production and Environmental Aspect Indicators

No	Production and Environmental Aspect Attributes	Score Value Per Attribute
1	Seaweed growth performance	75,00
2	Innovation and mastery of technology (Technical SOP)	77,00
3	Seaweed productivity	80,00
4	Quality of seaweed harvest	80,00
5	Availability of quality seaweed seeds	67,00
6	Effect of seasons on seaweed production*	40,00
7	Effectiveness of pest and disease control	58,00
8	Potential disasters and pollution *	79,00
9	Compatibility of space utilization with other sectors	99,00
	Average	73,00 **(Positif)**

Data source: Results of analysis using a Likert scale

Score interval:
- 0 - 20   : Very No Positive Impact
- 21 - 40   : No Positive Impact
- 41 - 60   : Less Positive Impact
- 61 - 80   : Positive Impact
- 81 - 100   : Very Positive Impact

Table 2. Perception of the Impact of the Seaweed CSR Program on Economic Aspect Indicators

No	Economic Aspect Attributes	Score Value Per Attribute
1	Income of farmers and processors	80,00
2	Efforts to add product value	80,00
3	Production quota	60,00
4	Economic added value for business actors/community	80,00
5	Business prospects and feasibility	76,00
6	Ownership of productive land	77,00
7	Efficiency of business ecosystem (upstream-downstream)	80,00
8	Saving rate and independent financing capability	60,00
9	Product branding and market access	80,00
	Average	77,00 **(Positif)**

Data source: Results of analysis using a Likert scale

Score interval:
- 0 - 20   : Very No Positive Impact
- 21 - 40   : No Positive Impact
- 41 - 60   : Less Positive Impact
- 61 - 80   : Positive Impact
- 81 - 100   : Very Positive Impact

Table 3. Perception of the Impact of the Seaweed CSR Program on Socio-Institutional Aspect Indicators

No	Social-Institutional Aspect Attributes	Score Value Per Attribute
1	Number of people involved in the seaweed business ecosystem	80,00
2	Group institutional performance and support	60,00
3	Management capabilities and human resources capacity	80,00
4	Gender involvement	80,00
5	Addition of independent business	63,00
6	Partnership and collaboration between stakeholders	80,00
7	The role of community participation	80,00
8	Ability to resolve social problem dynamics	80,00
	Average	75,00 **(Positif)**

Data source: Results of analysis using a Likert scale.

Score interval

-	0 - 20	:	Very No Positive Impact
-	21 - 40	:	No Positive Impact
-	41 - 60	:	Less Positive Impact
-	61 - 80	:	Positive Impact
-	81 - 100	:	Very Positive Impact

B. Program Sustainability Status Assessment

The results of the analysis using the multidimensional scaling (MDS) approach with the Rap-fish ordination technique on 3 (indicators) of the program, namely production and environmental aspects, economic aspects, and socio-institutional aspects, are presented in Table 4.
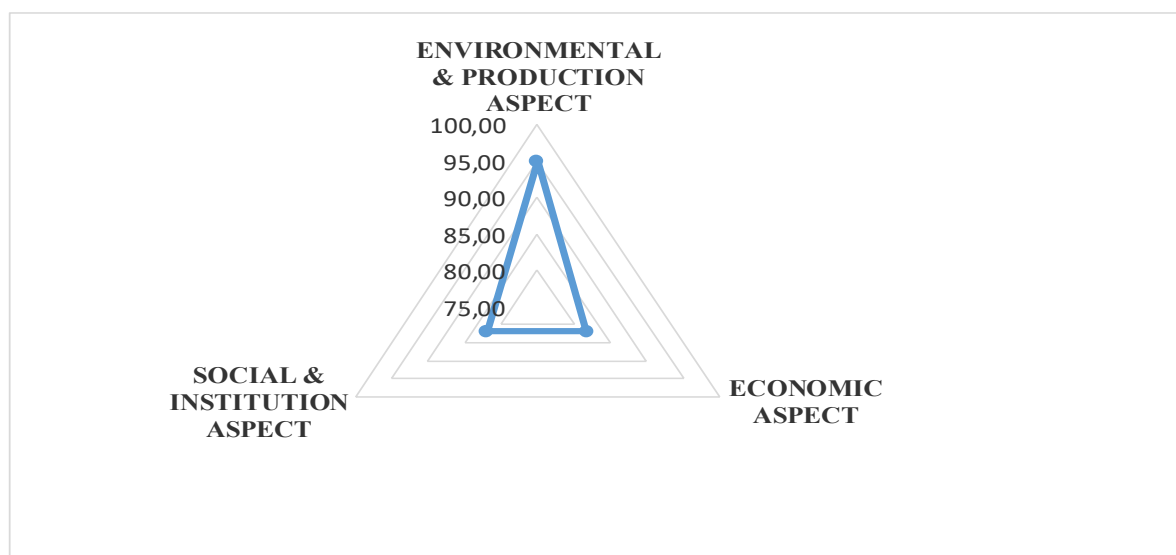

Figure 1. Sustainability Status Index Diagram

Table 4. Assessment of the Sustainability Index of the Seaweed Business Development CSR Program

No	Aspect Indicator	Index Value	Category
1	Production and Environmental Aspects	95,04	Sustainable
2	Economic Aspects	81,80	Sustainable
3	Social - Institutional Aspects	81,90	Sustainable
Conclusion of CSR Program Sustainability Status		86,25	Sustainable

Data source: Results of Multidimensional Scaling (MDS) analysis

Analysis to determine the leverage factors that affect the sustainability status of the CSR program for developing seaweed businesses in each aspect is carried out through rapfish analysis. The results of the analysis are presented in Figure 2, 3, and 4. Pareto analysis states that 80 percent of incidents are caused by 20% of the causes. Around 80% of the success achieved is the result of 20% of efforts. The meaning is that 20 percent of actions and thoughts can be maximized to achieve 80 percent success (Sunarto, 2020).
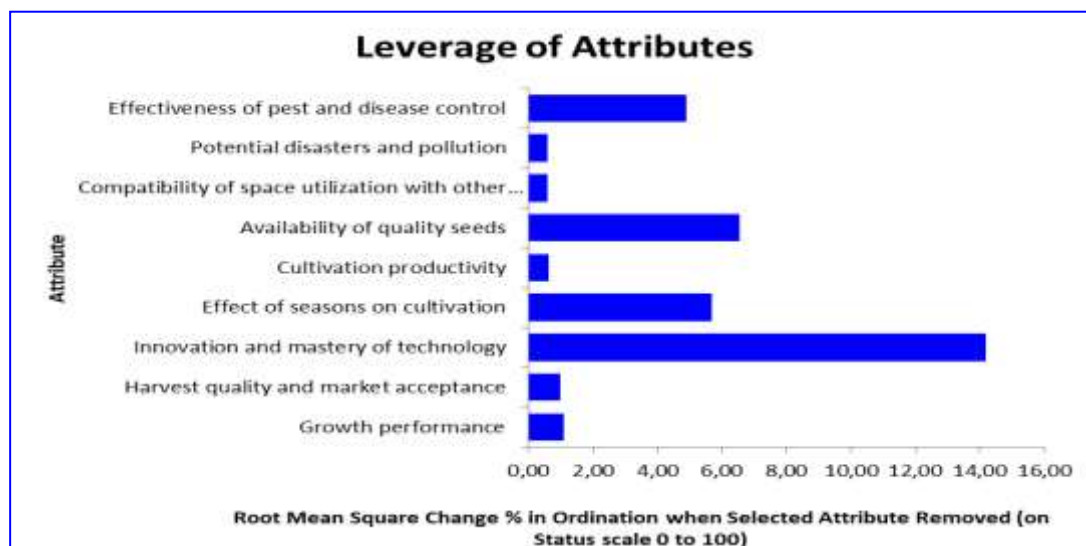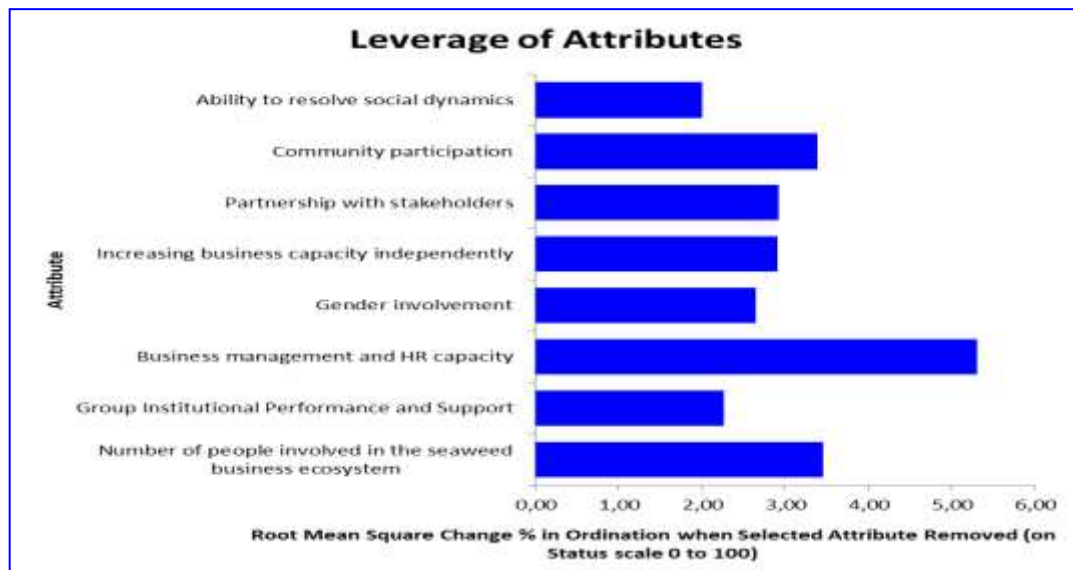

Gambar 2. Leveraging Factors of Production and Environmental Aspects

Gambar 3. Leveraging Factors of Economic Aspect

Gambar 4. Leveraging Factors of Social & Institution Aspect

C.   Stakeholders Analysis

The success of the CSR program cannot be separated from the collaboration between multi-stakeholders in a pentahelic manner, namely the Government, Private Sector, Cultivators, Associations, Academics, and the Media. Stakeholder mapping is intended to see the extent of each party's influence and interests, as a reference for strengthening each party's role in encouraging the success and sustainability of the program. The results of the stakeholder analysis are presented in Table 5.

Table 5. Matrix of Stakeholder Influence and Interests

No	Stakeholders	Influence	Interest	Category
1	PT. Bhumi Jati Power	+	+	Promotor
2	BBPBAP Jepara	+	+	Promotor
3	Central Java DKP	+	-	Latent
3	Jepara Fisheries Service	+	-	Latent
4	Jepara Cooperatives, SMEs, Manpower and Transmigration Service	+	-	Latent
5	Bappeda Jepara	+	-	Defender
6	Village Government	+	-	Latent
7	BUMDEs	-	-	Aphentetic
8	Seaweed Farming Group	+	+	Promotor
9	Seaweed Farming Group	+	+	Promotor
10	Pokdarwis	-	+	Defender
11	Pokwasmas	-	-	Aphentetic
12	Kadin Jepara	-	-	Aphentetic
13	LSM/NGO	-	-	Aphentetic
14	Media	-	-	Aphentetic

Data source: Results of stakeholder mapping interviews.

D. SWOT Analysis

The results of mapping of internal and external factors are carried out through Quantitative SWOT Analysis. The results of this data analysis are used to determine strategic interventions in efforts to improve program performance. The mapping of internal and external factors is presented in Tables 6 and 7.

Table 6. Internal Strategy Factor Matrix

Internal Strategy Factors	Weight	Rating	Score
Strengh)			
o Potential land for development	0,10	4	0,40
o The quality of the harvest is good and accepted by the market	0,10	3	0,30
o Innovation and mastery of technology (SOP)	0,10	4	0,40
o Good productivity	0,10	4	0,40
o Availability of quality seeds from tissue culture	0,05	3	0,15
o Number of human resources that can be empowered	0,05	3	0,15
Sub-Total	0,50		1,85
Weaknes)			
o Utilization is still minimal	0,10	3	0,30
o Kuljar seeds are not sufficient for needs	0,10	3	0,30
o Business capacity is still minimal	0,10	3	0,30
o Pest and disease control is not yet effective	0,15	4	0,60
o Group institutions still need to be strengthened	0,05	3	0,15
Sub Total	0,50		1,65
Total Score	1,00		3,45
Sumbu (x)			0,15

Table 7. External Strategy Factor Matrix

External Strategy Factors	Weight	Rating	Score
Opportunity			
o Product variants that can be developed	0,15	3	0,45
o Open marketing access	0,15	4	0,60
o Partnership and collaboration between stakeholders	0,15	4	0,60
o Compatibility with other sectors as an added economic value	0,05	3	0,15
Sub Total	0,50		1,80
Threa			
o Production failure	0,15	4	0,45
o Seasonal influences cause production cycles to be disrupted	0,10	3	0,30
o Fish pests that interfere with growth	0,10	3	0,30
o Market competitiveness/product market competition	0,10	4	0,40
o Fluctuating prices	0,05	3	0,15
Sub Total	0,50		
Total Score	1		1,75
Sumbu (y)			0,05

The score matrix above is then depicted through a diagram (quadrant) to determine the intervention strategy in encouraging the performance of the CSR program for developing seaweed farming businesses. There are 4 strategies that can be mapped based on internal and external factors, namely: aggressive strategy, diversification strategy, rationalization strategy, and survival strategy (Rangkuti, 2014).
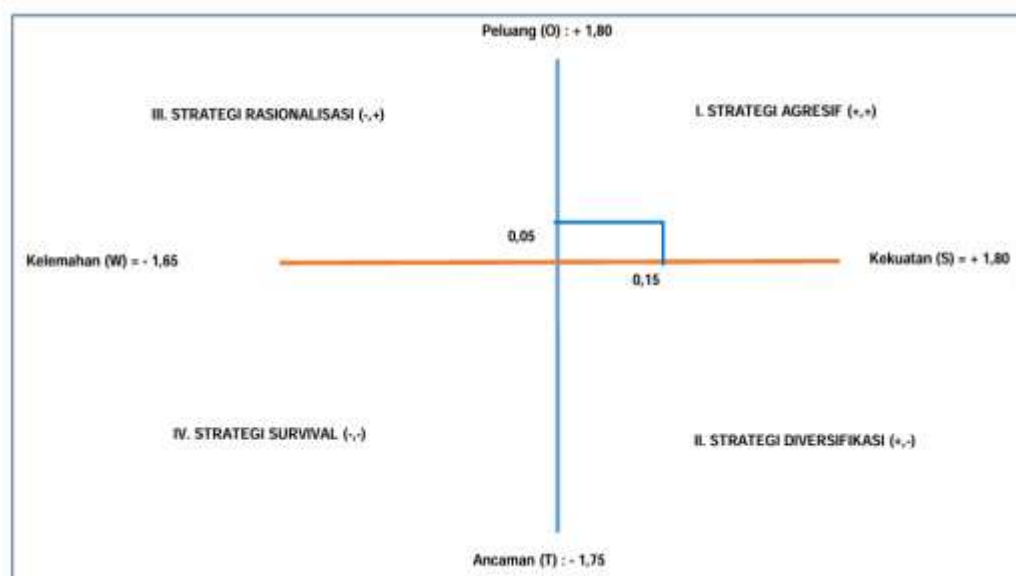

Figure 7. SWOT Analysis Results Diagram.

Based on the diagram above, the position of the CSR program for developing seaweed cultivation businesses needs to be intervened through an aggressive strategy.

DISCUSSION

A. Impact of CSR Programs on Community Development

In general, CSR is defined as a way in which a company name seeks to achieve a balance between economic, environmental and social goals in order to maintain a balance in the relationship between entrepreneurs and the surrounding community, because according to the ethical approach of an economic institution called business, it cannot be separated from its existence (Wida, 2017))

The results of data analysis using a Likert scale for mapping public perceptions regarding how far the CSR program for developing seaweed businesses is able to provide a positive impact on aspects of community development show that as many as 80% of respondents out of 25 respondents stated that it had a positive impact with an average total score of 75. The scores for each aspect are production and environmental aspects with a score of 73 (positive impact); economic aspects with a score of 77 (positive impact); and socio-institutional aspects with a score of 75 (positive impact).

In terms of production and environment, the majority of the community stated that during the implementation of the CSR program there was an increase in program achievement performance, including in the attributes: (a) Good seaweed growth performance. When compared to several cultivation locations such as in Saronggi, Sumenep Regency, seaweed growth in Bondo waters is relatively good with an average ratio of seeds to harvest of 1: 10 (Andriyani, 2023). (b) The quality of the harvest is good and the level of acceptance in the market is quite high. (c) Innovation and procurement of technical technology (SOP) have been mastered by the general public. (d) Seaweed productivity is normally high. (e) The availability of tissue culture seeds is available although in terms of quantity it has not fully met overall needs. (f) Compatibility with other sectors, especially tourism, is good and has the potential to be integrated as part of the added economic value. Meanwhile, the attributes that need improvement are: (a) Efforts to adapt to seasonal changes that have not been able to be carried out effectively; and (b) Control of seaweed pests and diseases that have not been able to be overcome effectively.

For the economic aspect, the attributes that are considered to have a positive impact during the implementation of the CSR program for developing seaweed businesses include: (a) Additional income from seaweed businesses. The majority of people feel a positive impact on additional income ranging from IDR 800,000 to IDR 2,000,000 per month for the initial stage. This value still has the potential to be increased by increasing the area of cultivation land. (b) The formation of seaweed-based processing groups, this is indicated by the existence of production houses, showrooms and innovations in product variants made from seaweed. (c) Economic added value for the community from seaweed business activities. (d) The emergence of new prospective business opportunities that can be used as alternative businesses for the community. (e) Ownership of economically productive land is quite feasible to meet economic standards. (f) The formation of a business ecosystem from seaweed from upstream to downstream, and it only needs to be encouraged to continue to develop. (g) Branding of products as local superior products and expanding market access is starting to open. Meanwhile, the attributes that need improvement are: (a) Continuous optimization of harvest quotas; (b) Saving rate has not been done and the majority (75%) of farmers have not been able to finance independently to increase their business capacity. The addition of economic added value from seaweed businesses can increase the Fish Farmer Exchange Rate (NTPi), where NTPi> 100 indicates that the community's purchasing power is improving (Directorate General of Aquaculture, 2011).

Meanwhile, in the socio-institutional aspect, the attributes that have a positive impact during the implementation of the CSR program include: (a) The involvement of the number

of people in seaweed farming businesses shows an increase. The total workforce (permanent and non-permanent) involved in the seaweed business cycle reaches 40 people. In addition, there are at least 5 people outside the group who do business with independent financing. (b) There is an increase in the capacity of community human resources both in terms of business management and technical aspects. (c) The high role of women in the seaweed business cycle, both in cultivation activities and product processing. The number of women involved reaches 15 people or around 37% of the total community involved in the seaweed business cycle. (d) The beginning of business partnerships with other parties in this case industry and market exploration is planned. (e) The development of the role of active community participation that is interactive starting from planning, and the group has been able to design a business concept (business process) independently. (f) Increasing the ability of groups to resolve the dynamics of social problems that occur both internally and externally to the group. Meanwhile, the attributes that need improvement are: (a) Institutional performance, especially supporting ones that have not been formed such as cooperatives and others; and (b) The lack of cultivators who are able to carry out independent financing to increase business capacity.

The achievement of the positive impact of the CSR program for developing seaweed businesses, concludes that this program is feasible and has the potential to be an important part of community development efforts towards the ultimate goal of community empowerment. According to Zubaedi (2013), one of the goals of community development is to build a community structure that facilitates the growth of democratic participation when decision-making occurs. This effort requires the formation of a process that allows a community to have access to resources, be able to control resources and power structures in society.

B.   Program Sustainability Status

Crane and Matten in Wheelen (2010) define sustainability as a term that indicates the scope of economic, social and environmental issues to operate in the long term. Referring to Pitcher and Preikshot, 2001 in Fauzi and Anna, (2005) regarding the approach in Rap-fish, it can be concluded that the sustainability status of the CSR program for developing seaweed cultivation (see Table 4), each for the production and environmental aspects has a sustainable category (index value 95.04); the economic aspect has a sustainable category (index value 81.80), and the socio-institutional aspect with a sustainable category (index value 81.90). Based on the index values in these 3 aspects, it can be concluded that the CSR program for developing seaweed cultivation businesses is in the sustainable category (average index 86.25). Thus, the development of seaweed businesses is worthy of being developed and a priority to grow local economic movements and can be a model that can be replicated in other areas.

Based on the results of the rap-fish analysis (see Figures 2, 3, and 4) it shows that the factors that leverage the sustainability status that need to continue to be driven in the short term, namely: (1) The effect of the season on seaweed production; (2) Effectiveness of controlling seaweed pests and diseases; (3) The amount of production quota; (3) Saving rate and independent financing capacity; (4) Economic added value for business actors/communities; and (5) Institutional performance.

Sustainability status analysis is important to understand the relationship between the development process and sustainability, both environmentally, socially, economically, and institutionally. This is in line with the principle of sustainable development, especially the responsibility of the company to encourage the achievement of Sustainable Development Goals (SDGs) in managing business activities. According to --The success of the CSR

program can also be assessed from the aspect of its sustainability. In terms of initiatives, for example, there is a shift in role from the company to the community. So that without the role of the company, the program can run independently (Sari, 2015).

C.   Multi-Party Role (Stakeholders)

Stakeholder analysis is to identify key stakeholders, their interests, and their influence on the program/project, as well as to build community participation strategies and support for new policies by understanding the position and strength of each stakeholder. Stakeholder analysis is useful for designing effective strategies and policy implementation by involving stakeholders (Ayuningtyas, 2018). The results of the analysis show that there are at least 4 (four) categories of stakeholders based on their level of influence and interests, namely: Promoter, Latent, Defender, and Aphentetic. Based on the results of the stakeholder analysis on the CSR program for developing seaweed businesses (see Table 2), it can be mapped as follows:

1. Stakeholders who have a high level of interest and influence in efforts to ensure the sustainability of the seaweed business development program are: (a) PT. Bhumi Jati Power; (b) BBPBAP Jepara; (c) Pokdakan Rumput Laut; and (d) Poklasar Rumput Laut. Therefore, efforts that need to be made towards these stakeholders must be more actively involved in full, including in evaluating new strategies in developing seaweed businesses.
2. Stakeholders with a high level of interest but low influence are the Tourism Awareness Group (Pokdarwis). These stakeholders can often be very helpful, especially in integrating seaweed business activities with Bondo beach tourism, so the relationship with these stakeholders must be maintained well.
3. Stakeholders with a low level of interest but have a high influence are; (a) Jepara Regency Fisheries Service; (b) Jepara Regency Cooperatives, UMKM, Manpower and Transmigration Service; (c) Jepara Regency BAPPEDA; and (d) Village Government. These stakeholders can turn into key players due to an event. Good relations with these stakeholders continue to be fostered. For this reason, all the information needed must continue to be provided so that they can continue to play an active role in achieving the objectives of the grass business development program.
4. Stakeholders with low levels of interest and influence are: (a) BUMDEs; (b) POKWASMAS; (c) LSM/NGO; (d) KADIN Jepara; and (e) Mass Media. These stakeholders must continue to be monitored and communicate well to support the program.

Collaboration between multiple parties is very important in efforts to drive a more efficient business cycle. Efficiency can only be achieved if the business ecosystem that is built is more integrated through multi-party support (Mardiyanta, 2024).

D.   Strategy for Program Sustainability

The results of mapping internal factors (strengths and weaknesses) and external factors (opportunities and threats) as in Table x and the results of the Quantitative SWOT analysis presented in the diagram (see Figure x) can be concluded that the general condition of the seaweed business development program is in a favorable situation. Therefore, the strategy that can be intervened is an aggressive strategy, namely a more focused effort to optimize efforts in encouraging existing strengths and utilizing opportunities to boost business development performance. According to Rangkuti (2004), an aggressive strategy is

a strategy that supports companies to continue to maximize existing strengths and opportunities to continue to advance and achieve greater success.

Based on this, the strategy to encourage the sustainability of the seaweed business development program, among others:

1. Optimizing the use of productive land by encouraging innovation and mastery of technology (Technical SOP) to increase high productivity and effectiveness of preventing seaweed pests and diseases;
2. Increase the availability of tissue culture seeds according to needs by increasing the area of seed gardens;
3. Maintaining the quality of seaweed harvest and post-harvest according to market demand standards to increase product acceptance and bargaining position;
4. Involving the involvement of community empowerment roles and strengthening group institutions by creating local champions to attract community interest in seaweed businesses;
5. Increasing the expansion of market access through strengthening promotions, branding of local superior products, and product differentiation efforts to reach a wider market;
6. Encourage business partnerships, especially in efforts to expand product market access;
7. Increasing the integration of seaweed business activities with the tourism sector to create added economic value.

To encourage the effectiveness and achievement of program performance, efforts are needed to develop adaptive strategies based on fundamental problems. Adaptive strategy is a flexible and dynamic approach to making decisions and responding to change, both in the context of business, management, or even in everyday life (Suwandi, 2023).

CONCLUSION

In general (80%) the community considered that the CSR program for developing seaweed businesses had a positive impact on indicators of community development aspects, namely production and environmental aspects; economic aspects; and socio-institutional aspects. Based on the results of multidimensional scaling data analysis on 3 (three) sustainability aspect indicators, the average program sustainability index was 86.25, indicating that the program was in the sustainable category. The strategy that needs to be intervened is an aggressive strategy, namely a strategy that focuses on efforts to optimize existing strengths and capture existing opportunities to ensure the sustainability of seaweed business development.

ACKNOWLEDGEMENT

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