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Sustainability and Strategy for Development of the Village-Owned Enterprise (BUMDes) Concept for Coastal Communities through Triple Bottom Line and Interpretative Structural Modeling

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The benefits of the existence of Village-Owned Enterprises (BUMDes) in coastal areas are still not felt by the local community, so their sustainability is also in doubt. There are internal and external factors such as the commitment of the government and other stakeholders and a more appropriate concept development strategy is needed to strengthen its effectiveness. The objectives of this research are 1) to measure the sustainability of BUMDes in empowering the economy of coastal communities, and 2) to formulate a strategy for developing the BUMDes concept in driving the economy of coastal communities. This research method uses a survey method which will take place in 2022-2023 in six Tapal Kuda districts, in East Java Province. Three sub-districts were taken from each sample district and one village was taken from each sample sub-district based on the health conditions of BUMDes using Cluster sampling. The sample for this research came from a population of 30 BUMDEs administrators, 60 village government officials, and 120 coastal community residents who were determined intentionally. To answer the first objective, analysis was used using the Corporate Sustainability approach using the Triple Bottom Line model approach, and to answer the second objective, analysis was used using the Interpretative Structural Modeling approach. The research results reveal that 1) in the economic dimension, the sustainability of BUMDes in the research area is sustainable, and 2) The most basic variable and has a real influence on the other nine variables in building a strategy for developing the BUMDes concept is efforts to minimize the vested interest of village heads and the impact of local politics. Therefore, each variable, either independently or collaboratively in forming the Reachability Set, Antecedent Set, Interceptions, and coordinates, affects the other variables. These phenomena include the variable of increasing capital participation in BUMDes from various sources which influences three other variables, namely the variable of awareness for village governments regarding the strategic importance of BUMDes in empowering the economy of coastal communities, the variable of optimizing and diversifying business units by local wisdom, and the variable of strengthening Statutes and bylaws (Village regulations) for BUMDes governance.

Keywords: BUMDes concept, empowerment, sustainability, development strategy, Tripel Bottom Line, Interpretative Structural Modeling.

INTRODUCTION

The constellation of problems of poverty and income disparities in coastal communities is still a very poignant discourse in the last decade even though national economic growth continues to increase from year to year. This means that the national development process is still not complete in responding to the problems of coastal communities appropriately. In the strategic plan of the Ministry of Maritime Affairs and Fisheries from 2015- 2019, there are two things to be achieved, namely increasing the coastal Community Welfare Index (IKM) and encouraging GDP growth in the Fisheries sub-sector in the same year period. Efforts to realize this increase in SMEs include increasing the utilization of marine resources with the expectation that the level of welfare of coastal communities will increase as seen in Figure 1. However, the facts on the ground show that the household income of coastal communities continues to fluctuate until it tends to decline and is at the poverty line or even below it so their purchasing power tends to weaken.

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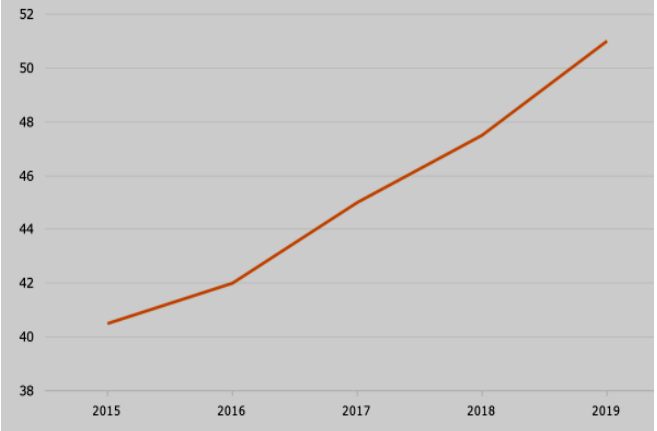

Figure 1. Level of Welfare of Coastal Communities (Source: Ministry of Maritime Affairs and Fisheries, 2020).

Based on BPS data (2022), it was also revealed that in the 2019 - 2021 period the condition of extreme poverty, especially in coastal areas, was still relatively higher than other regions and had more complex and crucial problems, the number of which reached 4.19%. However, the actual poverty conditions are that administratively, in coastal areas the number of extreme poor people even reaches 12.5% with the phenomenon being more complex based on characteristics than in non-coastal areas. In fact, in 2021 the government has disbursed cross-ministerial budgets for various programs to increase labor productivity, capital, sub-optimal land, and empower communities in coastal areas reaching more than 76 trillion rupiah.

Article 20 of Permendes No. 4 of 2015, Permendes, PDT and Transmigration of the Republic of Indonesia No. 03 of 2021, and PP No. 11 of 2021 also opens up the widest possible opportunities for BUMDes to serve coastal communities as the spearhead of economic empowerment. BUMDes contextually is a village economic institution formed by village residents through village deliberations and ratified by village regulations which aims to run productive economic business units in accordance with the village's economic potential in order to realize the welfare of the village community, so that the institution becomes the main driving force. economy. However, facts on the ground show that on average these institutions run less than optimally, their movements are less appropriate to their function, and often experience stagnation. This condition is caused by several factors, such as the commitment of regional and village governments which is still weak, especially in terms of capital investment. The village government's involvement in BUMDes development planning is still not optimal (good will is lacking), in fact there is often vested village interest in line with the development of BUMDes institutions. In this context, it is worth mentioning that natural resources are finite, and the world population is growing exponentially, which demands new products, food, housing, health, education, employment, and income, indicating that organizations must reduce the consumption of natural resources.

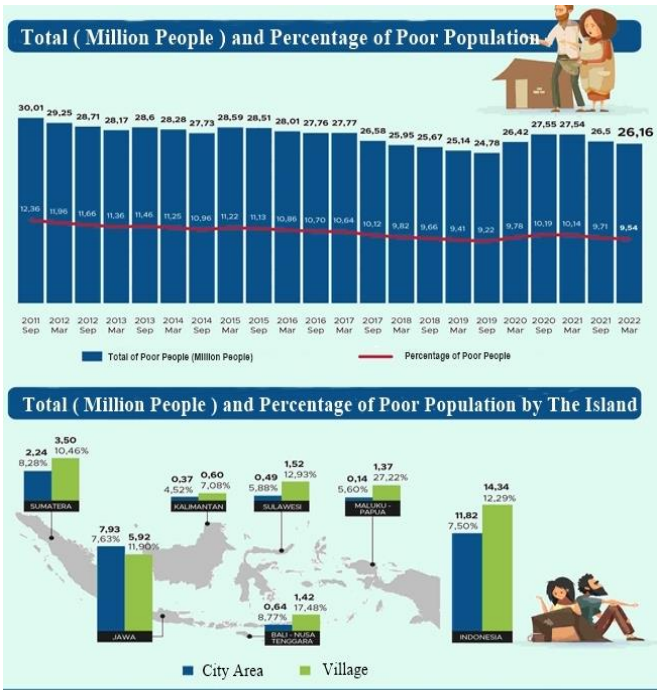

Figure 2. Poor Profile (entity) in Indonesia (Source: BPS, 2022).

In the context of sustainability, it emphasizes the need for systematic ideas aimed at conserving natural resources, reducing poverty and improving the welfare of life. Sustainability associated with the Triple Bottom Line (TBL) perspective is the result of organizational activities, both voluntary and bound by rules that demonstrate the organization's ability to maintain the continuity of business operations. Therefore, good performance in the financial dimension will result in good future performance in the social and environmental dimensions. So there is no dichotomy between environmental and financial performance and the two concepts are combined into one goal by proportional considerations.

Theoretical Framework: Departing from the condition of existence of BUMDes so far as described above, it is important to carry out a strategy to develop the BUMDes institutional concept so that its level of sustainability can be guaranteed economically (profit), socially (people) and ecologically (Planet) as well as finding a BUMDes model or concept. which has high accessibility and is conducive to coastal community areas. In an effort to develop this model, Parining, (2020) has recommended the need to build a village economic institution such as or in the form of BUMDes with specialist vegetable farmers in the highlands with a vertical

integration strategy that has land and packing processes in open markets that are ready for consumer access.

Based on the description above, it can be emphasized that research on BUMDes institutions has previously been mostly carried out in the highlands (non-coastal) with aspects of the role of the economy, factors driving and inhibiting the development of BUMDes institutions. The study of BUMDes in other aspects in coastal areas is still very limited, especially in the aspects of BUMDes survival and strategies for developing the BUMDes institutional concept so that it can be implemented easily in accordance with the economic potential and characteristics of village communities. Therefore, the objectives of this research are: 1) Measuring the level of sustainability of BUMDes in the long term using the Triple bottom line approach, and 2) Developing a strategy for developing the BUMDes concept as a model for economic empowerment of coastal area communities based on local wisedom, especially in the horseshoe area through an Interpretative Structure Modeling approach.

MATERIALS AND METHODS

Types, Methods and Research Techniques: The type of research used is descriptive with a quantitative and qualitative approach which aims to reveal facts in the field systematically, objectively and accurately as well as describing the relationship between phenomena that occur in an area (Whitney, 1960; Nazir, 1985). Meanwhile, the method used used in this research is the survey method which includes the Summative technique (Nazir, 1985; Singarimbun, 1987). The purpose of using the survey method is to dissect problems to obtain justification for the current situation and practices. This survey method can also be carried out evaluate and compare things that have been done in dealing with similar situations or problems. The basis for choosing this survey method is because the target population and types of activities are too large and spread across several far-flung areas (Nazir, 1985; Angelia *et al*., 2020).

Furthermore, the summative evaluation technique chosen is carried out at the end of the program either annually or per other period to measure whether the program objectives (BUMDEs) can be achieved. The Tapal Kuda area of Java Island in question is a certain area in the eastern part of East Java Province which is inhabited by the "pandalungan culture" community (people of descent between the Javanese and Madurese tribes) and has a very specific local culture. The northern coastal areas of Java Island include Pasuruan, Probolinggo, Situbondo Regencies, and the eastern - southern coastal areas of Java Island include: Jember Regency, and Banyuwangi. The diversity of social, economic and cultural characteristics which are quite real and distinctive will have an influence on the management and performance of BUMDes and have implications for the economic welfare of the community.

Figure 3. Location of sample districts in the Tapakl Kuda area of East Java Province: Banyuwangi, Jember, Situbondo, Probolinggo and Pasuruan districts (Source: BPS East Java Province, 2023).

Each sample district will determine the sample sub-district area in the coastal area with an average BUMDes institution in the categories of Good/Healthy, quite good, and not so good using purposive sampling based on the assessment of each sample district's Village Community Empowerment Service (DPMD). Furthermore, each sample sub-district was determined to have one sample village in the coastal area using purposive sampling with the same considerations as the sample sub-districts. So the number of sample villages in each sample district is 3 (three) sample villages or 15 villages in all sample districts. The five sample districts in the Tapal Kuda area of East Java Province are presented in Figure 3. There are several populations and samples in this research, namely the population of coastal communities directly affected economically by the existence of BUMDes consisting of a population of fishermen, farmers, traders, craftsmen, and non-formal sector workers. Apart from that, the type of population directly managing BUMDes institutions, namely the BUMDes Management and the heads of their business units, and the population that is not directly related internally to BUMDes but has a strong influence on the existence of BUMDes due to the authority or policy authority factor consisting of the Village Head, the Agency Village Representatives (BPD), Community Empowerment Institutions (LPM) and village officials.

The sampling was carried out using a Restrected sampling technique (limited sampling), namely that samples were drawn from a population that had been grouped first. Starting from the population being divided into groups or sub samples and then samples are drawn from each group and not all of the population in each group becomes members of the sample (Nazir, 1985). Furthermore, four types of sampling in the Restrected sampling method are used. Cluster sampling where the population is divided into homogeneous groups first based on clusters and the members of the sub-population

of each cluster do not need to be homogeneous and their numbers are unknown. Next, several clusters are selected as samples and then re-selected as unit members of the sample cluster, some of the elementary units of the sample cluster. In detail, the determination of the number of respondent samples was as follows: for each sample village, a sample of affected coastal communities was determined as 8 people, a sample of BUMDes Managers was 2 people, and as a comparison or control sample a sample of village officials was 4 people. Therefore, it can be confirmed that the sample size was 14 people per village, or 42 people per district, or 210 samples in total.

Data analysis

1. In order to answer the sixth objective regarding the level of sustainability of BUMDes in the future, it was analyzed using a Corporate Sustainability approach using the Triple Bottom Line model (Supriyadi, 2013) which includes economic, social and environmental (Ecological) dimensions. These three dimensions can be modeled through a regression equation in a time series or cross section. This means that measuring the level of sustainability of a small-scale business organization can be done using only one dimension, such as the economic dimension, considering that the relationship with the environmental and social dimensions is relatively independent. Sustainability based on economic dimensions can be measured as a proxy for company profitability from capital expenditure made from time to time. This means that profit is a function of capital expenditure and can be mathematically formulated as follows (Supriyadi, 2013): $\pi = f(Capex)$, where π = BUMdes profit and Capex = capital expenditure. The decision making criteria are as follows: If βe is positive then sustainability is strong, and conversely if it is negative then BUMdes is non-sustainable.
2. In order to answer the second objective regarding the process of formulating a strategy for developing the BUMDes concept as a model for economic empowerment of coastal communities, the data analysis used is through a strategic management approach both qualitatively and quantitatively. Qualitative analysis in this research is used to thoroughly explain the internal and external factors of BUMDes institutions to formulate long-term strategies. The approach that can be taken to develop a strategic formulation for BUMDes institutional development is through the Interpretive Structural Modeling (ISM) analytical tool approach (Attri, 2013) as designed in Fig. 4. This approach is used to describe the relationship between various elements related to the problem. Interpretative Structural Modeling uses computer applications to develop graphical representations of system composition and structure. Furthermore, according to the opinion of Sianipar (2012) The ISM structural model is produced to portray complex problems of a system, through carefully designed patterns using graphics and sentences. Through the ISM technique, unclear mental models can be transformed into visible system models.

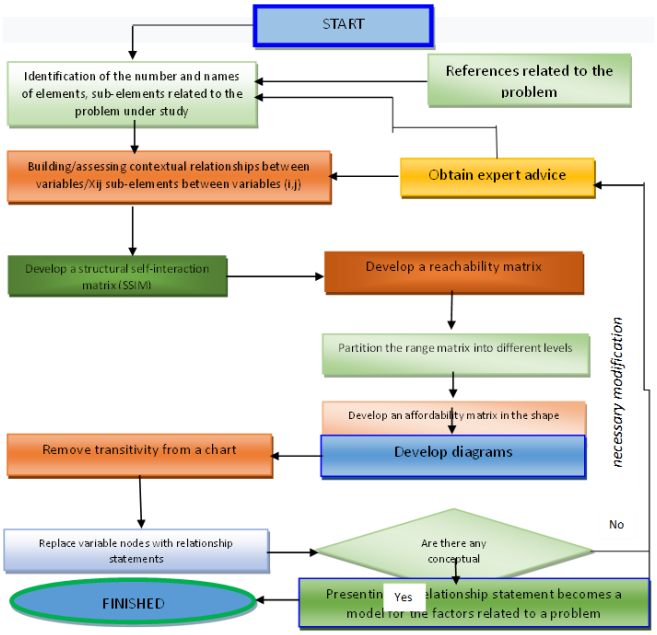

Figure 4. Flowchart for setting up the ISM model.

RESULTS

Sustainability of BUMDes: One of the approaches most often used to measure corporate sustainability is the Triple Bottom Line (TBL) approach, which means that the track record of an organization's activities shows the ability to maintain operational continuity both economically, socially and ecologically (Felisia and Amelia, 2014;Supriyadi , 2013). Because these three dimensions can be modeled through a regression equation in a time series or cross section, measuring the level of sustainability of a small-scale business organization can be done by using only one of the dimensions because all three have relatively strong independence Supriyadi (2013). As for the strong dependency on these three aspects, it is very much determined by the commitment of the BUMDEs managers and other relevant authorities. Therefore, in this analysis the aspect used is the economic dimension (profit).

The orientation of each BUMDes is of course to achieve profits (Profit) in which the activities of each business unit can run sustainably. BUMDes through their managers (operational implementers) try to encourage cost management to run well, efficiently and effectively, including how to increase labor productivity by reducing production activity time. Sustainability based on this economic dimension can be measured as a proxy for BUMDes profitability from capital expenditure made from time to time as presented in Figure 5. An overview of the economic sustainability conditions of the

average BUMDes in the research area can be presented in Figure 5 based on the results of analysis using the Triple Bottom Line (TBL) Concept approach. The results of this analysis produce the following regression model equation: Y = π = - 4 x 106 + 0.3915X, where Y is none other than profit (π) and X is capital expenditure or capital invested in BUMDes per month with a fairly strong correlation coefficient, namely R2 = 0.575 or 57.5%.

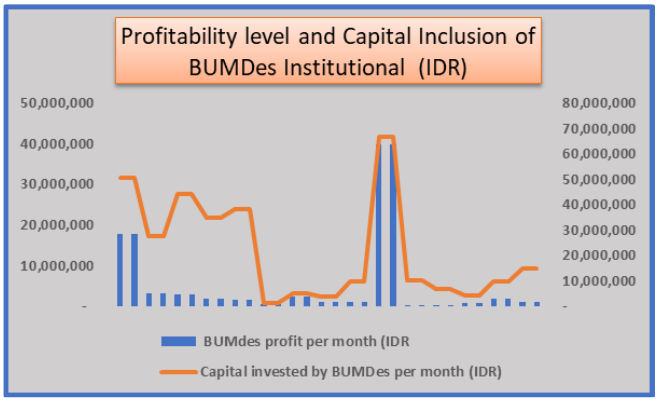

Figure 5. Proxy of BUMDes profitability from capital expenditure made from time to time in the Research Area in 2023 (Source: Processed Primary data, 2023).

In Figure 6 below, the economic sustainability trend is quite convincing because with invested capital of an average of IDR 21,993,333 per month, it turns out that the profit that can be achieved is an average of IDR 5,102,500. If viewed from the profitability aspect, it is 23.20%, which means its sustainability is quite strong because the correlation coefficient value is R^2 = 0.575 (57.50%). The strong relationship between these two variables is a result of several things as follows: 1) Some of the sample BUMDes operating in Banyuwangi, Situbondo and Probolinggo regencies have an average investment of capital per month of up to IDR 50,700,000, IDR 38,350,000 and IDR 66,750,000, respectively, although others are on average BUMDes management respondents were less open because they were afraid of being audited or felt they were being scrutinized, and 2) some BUMDes tend to manage their business units seriously and maximally so that they tend to be able to develop, which honestly conveys that Data regarding BUMDes activities was with the old administrators and at the time the research took place the respondents were new administrators so they submitted minimal data.

Based on the results of the analysis as presented in Figure 5. above, the decision-making criteria are that the average sustainability of BUMDes institutions in the research area is economically sustainable because it is supported by the results of statistical tests with the regression coefficient (βe) having a positive sign. Economically, the test results can be interpreted that if the average business capital or working capital increases by IDR 4,809,259.26 per month, then the average profit of BUMDes in the research area will tend to increase by IDR 1,997,629 per month. The average working capital and profits interpreted economically are based on the average per month during BUMDes operations, so it can be revealed that the sustainability of BUMDes in the research area is sustainable. The next implication is that if BUMDes can obtain that average level of profit, then their workforce will tend to be paid fairly, especially if the commitment of the village government and stakeholders is stronger and more efficient.

Based on the results of the analysis of indicators of the institutional sustainability of BUMDEs in the economic dimension in the research area, the views of (Gil-Marin *et al.*, 2022) on the results of their study regarding the TBL concept provide recommendations or practical implications for regional and central governments, in particular ministry of maritime affairs and fisheries, and coastal communities to be able to benefit from sustainability accounting, so that economic activities can run in harmony with social life and environmental sustainability. So far, the level of participation of coastal community residents in the research area is relatively low and some of them are not even aware of the existence of BUMDes in the village even though their houses are close to the BUMDes Office.

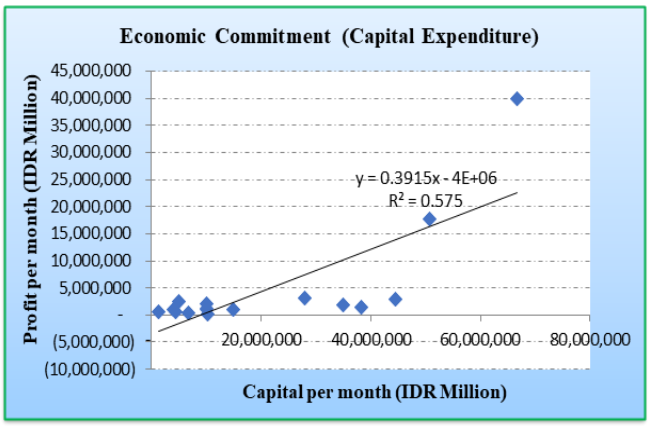

Figure 6. Relationship between BUMDes Profitability and Capital Expenditure in the Research Area in 2023 (Source: Processed Primary Data, 2023).

So far, community members in the research area have not been involved much by the village government to participate in advancing BUMDes institutions. One of the contributing factors is that BUMDes managers and village governments have difficulty finding strategies in developing a BUMDes concept that is adaptive and accepted by the public within the framework of economic empowerment of their community. The parties experienced difficulties in developing a strategy to develop the BUMDes concept due to several factors,

namely: 1) They have not been able to get the opportunity to dissect in depth the concept of BUMDes based on the Minister of Disadvantaged Villages Regulation Number 04 of 2015 and Government Regulation Number 11 of 2021 due to not yet understanding how to create momentum, 2) the average willingness and interest of advisory organs, managers (executors/managers), and supervisors in learning to understand textually and contextually regarding the concept of BUMDEs holistically is still relatively weak; 3) Political and good will of the Regional Government to optimize the role of BUMDEs in driving the village economy is still low and tends to be underestimated, so that supervision and empowerment of BUMDes institutions tends to have less place at the local policy level, and 4) Stakeholders do not provide much education and advocacy for BUMDes institutions so that contextually the BUMDes concept can be adapted to local policies in accordance with the culture and characteristics of coastal community areas. Therefore, (Gil-Marin *et al*., 2022) further emphasizes that the reconstruction results that will be offered should come from the local wisdom of coastal communities which has so far begun to be forgotten. So the concept tries to reconstruct the reality of coastal communities in providing solutions without destroying the community's main livelihood.

Based on several causal factors above, one solution that has the potential to be implemented at regional and village levels is to create regulations in the form of regional regulations stipulated by regional heads and legislatures that refer to the Minister of Disadvantaged Villages Regulation Number 04 of 2015 and Government Regulations. Number 11 of 2021. Furthermore, these regional regulations are executed by institutions under the regional head such as the Village Community Empowerment Service (DPMD) to prepare technical and operational guidance documents. To compile this document, the DPMD invited all stakeholders at both regional and village levels to design it together. One of the contents of this document is to embody or ground Regional Regulations and regulations at the top level by local characteristics and culture. Apart from that, the document outlines an agenda for monitoring, evaluating, and supervising implementation at the village level periodically (for example three-monthly periods) to guarantee and ensure that implementation in the field is correct while providing strengthening of knowledge and skills for BUMDes actors.

The parameter that applies the TBL concept is that there needs to be harmonization built between economic, social and environmental aspects to become an orchestration for sustainably improving community welfare. However, in this context, economically the BUMDes institution in this research area has proven to be quite strong in sustainability, although in the next stage it is necessary to measure social and environmental sustainability. The application of the TBL concept is strengthened by the views of Wadu *et al*. (2021) which emphasizes that sustainable development can be implemented or re-optimized if it is directed towards economic, social development and environmental protection, including in coastal areas.

***Development of the BUMDes Concept*:** In Zhukov *et al*. (2023) it is necessary to assess the balance of functioning of the socio-economic system based on the proposed indicators, taking into account the level of suitability of the field survey results.Modeling using the Interactive Structural Modeling (ISM) approach has been widely applied by several researchers to obtain a development model for an institution, including institutions operating in the business sector. One of the results of research conducted by (Parining, 2020) revealed that there were difficulties for farmer groups accessing market institutions, their production was not by market needs, and within the group there was no functional organizational structure (production division, processing division, and marketing division), and the institutional supply chain has not been utilized optimally as a reference for the farmer group expert meeting agenda. The focused recommendation is the need to form a village institution such as a Village-Owned Enterprise (BUMDes) as an appropriate choice of new institution. Therefore, the presence of BUMDes institutions is an alternative solution.

In empirical reality for similar phenomena, not all BUMDE institutional presence is part of the solution to the intended hope. The BUMDes institutional concept built by the central government is not fully adaptive to be applied in rural areas. This is because the economic, social, and cultural conditions in each region have very heterogeneous characteristics, especially in the coastal areas of the horseshoe area of East Java. The concept of BUMDes, which is still centralized, is considered important to be futurized in each region, which can be stated in Village Regulations (Perdes) with the juridical basis of Permendes and related PPs. Several strategic approaches can be taken to develop the BUMDes institutional concept in the research area which has the potential to support efforts to empower the economic community in coastal areas. This approach is in line with the characteristics of the community in the research area (coastal area) where horseshoes are a pandalungan culture. The strategies for developing the BUMDes institutional concept are presented in Table 1. In Table 1, it is known that there are 10 BUMDes institutional development strategies based on the results of exploration among respondents through the Focus Group Discussion technique and the results are analyzed using the Interpretative Structural Modeling (ISM) analysis technique as presented in Figure 8.

The BUMDes development strategy in the research area is based on the results of previous studies and PDTT Village Minister Regulation Number 4 of 2015 concerning the Establishment, Management and Management, and Dissolution of Bumdes, Government Regulation Number 11 of 2021 concerning BUMDes, and PDT Village Minister Regulation Number 3 of 2021 concerning Registration, Data

Collection and Ranking, Guidance and Development, and Procurement of Goods and/or Services for Village-Owned Enterprises/Joint Village-Owned Enterprises. Apart from that, the development of the BUMDes institutional concept strategy is also based on the results of interviews with respondents so that it is compiled into 10 types of strategies that can be developed as presented in Table 1. The steps for developing the concept operationally can be carried out based on the results of data processing using an interpretive analysis approach. Structural Modeling (ISM) as shown in Figure 7.

Table 1. BUMDes Institutional Development Strategy in Efforts to Empower the Community's Economy in the Horseshoe Coastal Area of East Java in 2023.

No.	BUMDes Development Strategy
1	Capital participation in BUMDes is increased: Village Funds, APBDes, Community
2	Strengthening BUMDes institutional facilities and strengthening business unit foundations against the potential for a global economic recession
3	Strengthening BUMDes HR management, such as training and providing adequate appreciation to employees
4	Commitment of regional and village governments to the sustainability and progress of BUMDes
5	Strengthening ADRT, PERDES for BUMDes governance
6	Optimization and diversification of business units in accordance with local wisdom to increase the competitiveness of BUMDes
7	Awareness for village governments regarding the strategic nature of BUMDes institutions in empowering the economy of coastal communities
8	Participation of coastal communities in utilizing BUMDes business units
9	Collaboration of program policies that support each other between stakeholders
10	Minimize the vested interest of village heads and the impact of local politics

Based on the ISM model, it can be seen that efforts to minimize the vested interest of village heads and the impact of local politics are the most basic variables that have the most significant influence on other variables in the BUMDesa development strategy model. This means that the vested interest variable can influence other variables, namely the program policy collaboration variable that supports each other between stakeholders. A strategy to minimize vested interest for village heads needs to be carried out at the beginning of BUMDes institutional development. Because this factor will clog the process of developing BUMDes institutions, the government needs to make regulations in the form of improving laws and regulations from upstream to downstream. So it is not an exaggeration if Syarifudin and Susi (2020) argue that the policy of improving regulations in the form of government support for BUMDes performance through capital facilitation and sustainable assistance is one of the recommended BUMDes development strategies.

DISCUSSION

The variable of program policy collaboration that supports each other between stakeholders in the area where BUMDes operates is the next step in the context of implementing a strategy to develop the BUMDes institutional concept to empower the economy of coastal communities in the research area. The marine tourism and protected forest development program is one of the collaboration strategies between stakeholders, in this case, they can synergize with the tourism, travel, and banking departments to revive tourism potential which can drive the economy in coastal areas. Apart from that, this strategy can also collaborate with Fish Auction Places (TPI), Fisheries Service, Cooperative and UMKM Service, Trade and Industry Service, Kadin, Kakandepag, and fishermen groups, and Financing Institutions for handling caught fish both for marketing fish in the form of fresh or processed (downstreaming) and marketing so that it does not fall into rent-seeking and black-market practices which will cause misery to fishing communities.

To encourage tourism industry activities and creative industries in the research area, it is important to collaborate with universities and non-governmental institutions that are engaged in community empowerment, especially in encouraging the movement of the craft industry. Many marine resources have the potential to be developed to produce crafts, including culinary delights so that they become supporting marine tourism and forest tourism. Apart from that, the micro and other People's Business Credit Program (KUR) managed by BRI and other banks are programs that can be collaborated with by BUMDes to strengthen capital and business expansion paths or add business units. Likewise, the warehouse receipt program under the coordination of the Department of Agriculture can be collaborated through cooperative marketing of agricultural products and even BUMDes can act as Holding Companies in the agricultural sector from upstream to downstream. Specifically, for the Holding Company program, BUMDes can collaborate with financing institutions, central banks, production input suppliers, Job Training Agency (BLK) - Department of Manpower and Transmigration, and other marketing institutions.

Furthermore, Figure 7 below also explains that the program collaboration variable with various stakeholders can then influence the participation variable of coastal communities in utilizing BUMDes business units. Because more and more business units are being operationalized as a result of collaboration programs, the preferences for community needs

are becoming more available so the level of participation has the potential to be high. The higher the level of community participation, the healthier the BUMDes institution will be. Facts in the field reveal that the level of community participation is relatively low for BUMDes business units in the research area. This constellation shows a correlation between the level of community participation and the number of business units operated by BUMDes in the research area. Therefore, operationally, the strategy of strengthening the foundations of business units is an effort to mitigate the potential for a global economic recession in the future. BUMDes that still have limited business units (for example, only one business unit) need further expansion so that they can sustainably develop their institutions.

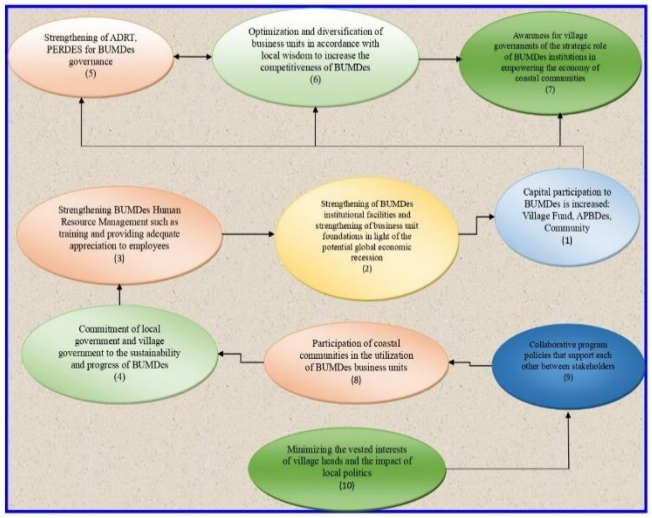

Figure 7. Bumdes Institutional Development Strategy in Efforts to Empower the Community's Economy in the Horseshoe Coastal Area of East Java in 2023 (Source: Processed Primary data, 2023).

In fact, the economic potential of BUMDes in the research area is very large. If operational implementers do not dare to try to invest in adding business units and at the same time the facilities they need, then in the short and medium term the BUMDes will stagnate. Regarding the level of participation which is related to the number of BUMDes business units, this condition is in line with the research results of Wahed (2020) which reveal that community participation in BUMDes activities is still lacking because public knowledge of the BUMDes program is still low. low. Therefore, one of the strategies carried out by BUMDes Surya Sejahtera as one of the BUMDes which is the BUMDes pilot project in East Java Province is to diversify activity units to include many residents so that the presence of BUMDes can be felt by the community (Pradini, 2020).

The next constellation is that the variable participation of coastal communities in utilizing the BUMDes business unit influences the commitment variable of the regional government and village government regarding the sustainability and progress of BUMDes. Facts on the ground show that not all local governments in the research area have a strong commitment to advancing BUMDes institutions, including in coastal areas. The regulations developed by the government have not shown massive progress in the development of BUMDes. This condition is at least demonstrated by the fact that regional regulations or regents have not yet been made that provide a legal umbrella for the existence of BUMDes, but only a few regions have done so. Therefore, in the opinion of Nursetiawan (2018); Sulaksana and Nuryanti (2019) that the sustainability and progress of BUMDes has a strong positive influence on building an independent village, so that the commitment of the regional government and village government is needed to carry out innovation or development of BUMDes.

Furthermore, the government's commitment variable can influence the variable of strengthening Human management, such as training and giving adequate appreciation to employees. In line with the strong commitment of regional governments and village governments in the form of strengthening capital and facilitating other supporting capacities framed by a legal umbrella. One example of the facilitation commitment in question is providing sisterly assistance to BUMDes operational actors as well as supervisors and advisors on an ongoing basis. This is in accordance with the case that occurred at BUMDes Sumber Mulia Purwareja Village, Sematu Jaya District, Lamandau Regency, namely by adding quality human resources as an alternative strategy (Iyan, 2020), so that this can support improving the performance of BUMDes management (Pradini, 2020). The quality of village human resources also needs to be improved with various programs and assistance to create independent, competitive, prosperous, and quality village communities (Chikmawati, 2019).

Furthermore, the variable for strengthening BUMDes management will influence the variable for strengthening BUMDes institutional facilities and strengthening the foundations of business units against the potential for a global economic recession. BUMDes need to understand how the management of institutional facilities or assets can increase village income. Strategies that can be implemented include managing a website-based information system to introduce the public to BUMDes service products and marketing to the public about the potential of tourist attractions managed by BUMDes (Zunaidah, 2020). BUMDes facilities need to be built adequately so that they can support human resources whose activities are more consistent. Of course, this requires a strong commitment from the Village Government and the quality of BUMDes institutional human resources.

Furthermore, after making efforts to strengthen the BUMDes facilities, in parallel, we also carry out strengthening of the foundations of the business units which have been carried out

so far. As competition becomes increasingly fierce, business units must have a strong foundation to carry out competition in local, regional, and even national markets. If the greatest potential is a tourism object, then the business unit always updates various aspects of its inherent attributes so that potential tourists are always interested in visiting. Of course, tourist attractions cannot run alone but are supported by other businesses carried out by BUMDes and surrounding residents, such as the craft and culinary industries and other stakeholders. An example of good practice (Best Practice) is the finding in BUMDes Binur Energy, one of the BUMDes in the sample district, including BUMDes Nunggal Sejahtera which has a bakao forest tourist attraction with all the processed food industries.

Then the variable of strengthening BUMDes institutional facilities will influence the variable of capital participation in BUMDes whether sourced from the Village Fund, Village Treasury, or other community groups. After all the variables above have been fulfilled, especially the policy maker's commitment variable, the next strategy is an effort to provide adequate capital for BUMDes institutions to guarantee and ensure their sustainability. BUMDes budget is the main obstacle in the case study of BUMdes in Pejambon Village, Sumberrejo District, Bojonegoro Regency. Regarding the pattern of utilization of village programs, it is more about the physical development of villages, while the contribution to empowering village communities is still not optimal.

Interestingly, this ISM analysis also reveals that each variable, both independently and collaboratively, in forming the Reachability Set, Antecedent Set, Interceptions, and coordinates influences other variables. These phenomena include the variable of increasing capital participation in BUMDes from various sources which influences three other variables, namely the variable of awareness for village governments regarding the strategic importance of BUMDes in empowering the economy of coastal communities, the variable of optimizing and diversifying business units by local wisdom, and Statutes and bylaws (Village regulations) for BUMDes governance. The business unit diversification variable requires consideration of the values and norms that apply in society to avoid rejection or other counter-productive things. If all the variables are analyzed in the results of this research, the effectiveness of the BUMDes institutional role will have more visible results in improving the economic welfare of coastal area communities.

Conclusion: Based on the results of the discussion above, the following conclusions can be drawn: The sustainability of BUMDes institutions in the research area based on the Triple Bottom Line concept can be explained that economically (Profit) it is revealed that Sustain is running with a profit level of 23.20%, although financial commitment is still needed to support BUMDes institutional capital. Furthermore, there are 10 main and important variables in formulating a strategy for developing the BUMDes institutional concept. The main variable that is the most basic and has a real influence on the other nine variables is the variable of efforts to minimize the village head's vested interest and the impact of local politics. In the results of this ISM analysis, each variable, both independently and collaboratively in forming the Reachability Set, Antecedent Set, Interceptions, and coordinates also influences other variables. These phenomena include the variable of increasing capital participation in BUMDes from various sources which influences three other variables, namely the variable of awareness for village governments regarding the strategic importance of BUMDes in empowering the economy of coastal communities, the variable of optimizing and diversifying business units by local wisdom, and Statutes and bylaws (Village regulations) for BUMDes governance. As for the business unit diversification variable, it is very necessary to take into account the values and norms that apply in coastal communities to avoid rejection or other counter-productive things.

Based on several findings from the results of this research. The parties experienced difficulties in developing a strategy to develop the BUMDes concept due to several factors, namely: 1) They have not been able to get the opportunity to dissect in depth the concept of BUMDes based on the Minister of Disadvantaged Villages Regulation Number 04 of 2015 and Government Regulation Number 11 of 2021 due to not yet understanding how to create momentum, 2) the average willingness and interest of advisory organs, managers (executors/managers), and supervisors in learning to understand textually and contextually regarding the concept of BUMDEs holistically is still relatively weak; 3) Political and good will of the Regional Government to optimize the role of BUMDEs in driving the village economy is still low and tends to be underestimated, so that supervision and empowerment of BUMDes institutions tends to have less place at the local policy level, and 4) Stakeholders do not provide much education and advocacy for BUMDes institutions so that contextually the BUMDes concept can be adapted to local policies in accordance with the culture and characteristics of coastal community areas. Based on several causal factors above, one solution that has the potential to be implemented at regional and village levels is to create regulations in the form of regional regulations stipulated by regional heads and legislatures that refer to the Minister of Disadvantaged Villages Regulation Number 04 of 2015 and Government Regulations. Number 11 of 2021. Furthermore, these regional regulations are executed by institutions under the regional head such as the Village Community Empowerment Service (DPMD) to prepare technical and operational guidance documents. To compile this document, the DPMD invited all stakeholders at both regional and village levels to design it together. One of the contents of this document is to embody or ground Regional Regulations and regulations at the top level by local characteristics and culture.

Apart from that, the document outlines an agenda for monitoring, evaluating, and supervising implementation at the village level periodically (for example three-monthly periods) to guarantee and ensure that implementation in the field is correct while providing strengthening of knowledge and skills for BUMDes actors.

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SDG's Addressed**:** No Poverty,Decent Work and Economic Growth,Reduced Inequality,Peace, Justice, and Strong Institutions,Partnerships for the Goals.

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