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EVALUATION OF FISH HATCHERY OF BANDUNG REGENCY BY USING EFAS AND IFAS ANALYSIS

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KeyWords
evaluation, EFAS and IFAS, Bandung Regency, Fish Hatchery of Bandung Regency

ABSTRACT

The purpose of this study was to evaluate IFAS and EFAS hatchery activities in BBI Regency of Bandung. This research was conducted at BBI Bandung Regency, Mei-August 2019. Field / institutional survey activities, to see firsthand the conditions of the location of study locations and cultivation activities as well as evaluation materials for primary data collection and secondary data using IFAS (Internal Factor Strategic Analysis) and EFAS (External Factor Strategic Analysis. The result of this research was Three main commodities that can be developed at UPTD BBI Kab. Bandung is tilapia, catfish and *Cyrinus carprio*. In an effort to optimize the performance and productivity of BBT UPTD Kab. Bandung, it is necessary to improve facilities and infrastructure, increase seed production, implement main production, improve internet access for e-commerce development and add main products in the form of parent products The development strategy is carried out with an investment strategy that is by producing breeders from the three commodities developed
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Introductions

Potential waters that have been developed include among others in freshwater waters (rivers, lakes, ponds), brackish waters (ponds) and sea waters (beaches and high seas). In the implementation of the sixth Nawacita President Republic of Indonesia, fisheries resource management is directed through the Sub-Agenda: National Economic Growth Acceleration through Increasing Fisheries Products, namely through improving the quality, added value and innovation of fisheries technology, improving the quality of fisheries facilities and infrastructure, improving fisheries governance and sustainable fisheries management .

The production of aquaculture in Bandung Regency in 2017 experienced an increase in the production of seeds and fish consumption. Production achievements of tilapia, goldfish, catfish, ornamental fish and various fish in the Fish Hatchery UPTD increased by 6.55% from 20.6 million in 2016 to 21.9 million in 2017. The production of fish seed production in the targeted community increased by 4% but only realized by 2.89%, from 1,694.52 million head in 2016 to 1,743.56 million head in 2017. While consumption fish production in 2017 increased by 4.19% from in 2016, from 13,485.82 tons to 14,051.00 tons (Dinas Ketahanan Pangan dan Perikanan Kabupaten Bandung 2019).

The provision of superior seeds is a key strategic factor to be able to mobilize all the resources and potential of aquaculture (Oktoriana et. Al 2012). This can contribute to regional development. It plays an important role as UPT Fish hatchery as a technical implementation unit in the Department of Food and Fisheries of Bandung Regency plays a very important role where it is tasked with formulating technical policies and implementing technical operations in the field of fisheries, especially fish hatcheries covering production, resources, business development, development and distribution. In addition, the fish hatchery UPTD (hereinafter referred to as the Bandung Regency Main Seed Center or BBI) provides services and development of fish hatchery to the community as well as being a source of local revenue (PAD) in the food and fisheries sector. The purpose of this study was to evaluate IFAS and EFAS hatchery activities in BBI Regency of Bandung.

Method

Field / institutional survey activities, to see firsthand the conditions of the location of study locations and cultivation activities as well as evaluation materials for primary data collection and secondary data. The data to be collected are:

a) Pond includes area, amount
b) Aquqculture infrastructure and facilities (freshwater irrigation, electricity)
c) Application technology for good fish farming,
d) Availability of quality feed,
e) Aquqculture innovation with recommended technology,
f) Capital access,
g) Distribution of fishery products, handling of cultivation and marketing products,
h) Production includes fish species, quantity, average price, quality and value,
i) Main Cultivation Commodities
j) Human Resource Conditions
k) Local Government Policy Support, i.e. Collection of data on government policies including RPJP, RPJMD and Strategic Plan including institutional analysis.
l) Environmental data, i.e. collection of data on environmental aspects in which there is conformity to the development of aquaculture and the physical environment.

Data Analysis

The right strategy can be analyzed using IFAS and EFAS evaluation methods (Rusydiana & Firmansyah, 2019; Widiastuti, Rusydiana, & Firmansyah, 2018; Bahagia et al., 2016)

IFAS (Internal Factors Analisys Summary)

Internal analysis is carried out to get the strength factor to be used and the weakness factor to be anticipated. To evaluate these factors the IFAS (Internal Factor Analysis Summary) matrix is used. Determination of internal strategy factors is done before making the IFAS matrix.

EFAS (External Factors Analisys Summary)

An external analysis was carried out to develop the opportunity factor that might be exploited and the threat factors that need to be avoided. In this analysis there are two external environmental factors, namely: macro environmental factors (political, economic, social, and technological) and micro external environments (business environment, distribution, infrastructure, human resources). The results of the external analysis are continued by evaluating to find out whether the strategies used so far have responded to the opportunities and threats that exist. For this meksud the EFAS (External Factors Analysis Summary) matrix is used.

Variable Assesment:

The weight of each variable is obtained by determining the value of each variable against the sum of the values of the entire variable using the formula:

$$Ai = \frac{}{\sum_{i=1}^{i} Xi}$$

note : A_i = Number of variable ke-i

n = Number of Variable i = 1,2,3, ……,n

X_i = variable value ke-i

The total weight given must be equal to 1.0. This weighting is then applied to be placed in the second column of the IFAS-EFAS matrix. The method is used to provide an assessment of each of the external and internal determinants. Paired Comparison Scale is a method used to measure relative investment. The weighting carried out describes the relative number of objects.

1 David in Ningrum (2010: 30) describes the weighting of each variable determined using a scale of 1, 2, and 3. The scale used to fill the columns is:

2 1 = if the horizontal indicator is less important than the vertical indicator

3 2 = if the horizontal indicator is more important than the vertical indicator

4 3 = if the horizontal indicator is more important than the vertical indicator

Tabel 1. Assessment of Internal Strategic Factor

Internal Strategic Factor	A	B	C	…….	Total	Value
A						
B						
C						
…….						
Total						

Sources: David dalam Ningrum (2010:30)

Tabel 2. Assesment External Strategic Factor

External Strategic Factor	A	B	C	…….	Total	Value
A						

B						
C						
…….						
Total						

Sources: David dalam Ningrum (2010)

SWOT Matriks Analysis

Based on the SWOT matrix analysis, various possible strategies for developing tourist attraction in the Cimol Gedebage Market shopping tour can be formulated. The combination of SWOT components is strategies that support the development of potential objects and tourist attractions such as: Strengths Opportunities (SO), Strengths Threats (ST), Weaknesses Opportunities (WO) and Weaknesses Threats (WT) strategies.

The following explanation is for the SWOT matrix:
1. SO (Strengths Opportunities) Strategy
This strategy is a strategy in which strength is turned into opportunities. This strategy uses the company's internal strengths to seize opportunities that exist outside the company. If the company has many weaknesses, the company must overcome those weaknesses to be strong. Meanwhile, if the company faces a threat, the company must try to avoid it and try to concentrate on the opportunities that exist.
2. ST (Strengths Threaths) Strategy
Through this strategy the company avoids or reduces the impact of external threats. This does not mean that strong companies must always be threatened.
3. WO (Weaknesess Opportunities) Strategy
This strategy aims to minimize the company's internal weaknesses by taking advantage of external opportunities.
4. WT (Weaknesess Threaths) Strategy
This strategy is a tactic to survive by reducing internal weaknesses and avoiding threats.
Results and Discussion
IFAS and EFAS analysis
Internal Factor Analysis Summary
From the results of observations at the location of the activity, some strengths can be identified by the UPTD Seeding, namely:
1. Having a quality product with Good and Excellence criteria
2. Has a vast potential of cultivated land
3. The availability of water sources that are easily obtained
4. Location in a strategic area in the Central Government of West Java Province
5. Has updated the technology through collaboration and comparative studies
6. Communication between UPTD and Dinas is well established
7. Has a diversity of products (several commodities)
The seven factors are made into supporting factors then calculated based on the degree of importance and weight. Then also identified several weaknesses (weaknesses) which include:
1. Facilities and infrastructure of cultivation activities spread in several locations
2. Declining quality of infrastructure that supports cultivation activities
3. The lack of efforts to handle water resources whose quality is declining
4. The absence of a clear marketing channel
5. limited UPTD institutions
6. HR who have limited quality and quantity to be involved in aquaculture activities
The results from the internal analysis of these factors indicate that the value of the weakness factor is higher compared to the strength factor.
Tabel 3. Tabel *Internal Factor Summary*

No.	Strength	Code	Value	Score	Value x Score
1	Quality product quality with criteria "Good" and "excellence"	K1	0,07	3	0,22
2	Wide potential of cultivated land	K2	0,05	3	0,16
3	Available water resources that are easily obtained	K3	0,05	3	0,16

4	Strategic location	K4	0,07	2	0,15
5	Updates to technology through collaboration and comparative studies	K5	0,07	2	0,15
6	Communication between UPTD and Dinas is well established	K6	0,10	3	0,29
7	Has a variety of products (several commodities)	K7	0,07	2	0,15
			0,5		1,28
	Weakness				
1	facilities and infrastructure of cultivation activities that are scattered in several locations	L1	0,07	4	0,26
2	The declining quality of infrastructure that supports cultivation activities	L2	0,07	3	0,20
3	The lack of efforts to handle water resources whose quality is declining	L3	0,07	3	0,20
4	The unavailability of clear marketing channels	L4	0,07	3	0,20
5	There is no cash flow that is arranged every production cycle	L5	0,08	4	0,34
6	limited UPTD institutions	L6	0,08	4	0,34
7	HR who have limited quality and quantity to be involved in aquaculture activities	L7	0,07	3	0,20
	Total		0,5		1,74

External Factor Analysis Summary

From the results of observations at the location of activities, several Opportunity opportunities can be identified, namely:

1. Water resources are easily available
2. A relatively easy marketing channel especially to the West Java region
3. The existence of cooperation (partnership) for the production of aquaculture
4. Location in a strategic area in the Central Government of West Java Province
5. A relatively easy marketing channel especially to the West Java region
6. Stable seed prices
7. Can be supported by government funds (APBD)
8. UPTD's reputation as a seed supplier already exists
9. Accessibility of the market in Kab. Bantung is quite adequate

The nine factors are made into supporting factors then calculated based on the degree of importance and weight. Then also identified several challenges (threats) which include:

1. Lack of access to capital, especially in banking

2. Source of feed that is still obtained from outside (there is no independent feed)

3. customer satisfaction, especially in the handling of complaints and suggestions not yet potential input

4. Competitors from outside Kab. Bandung

5. The price of feed is quite expensive

The results from the internal analysis of this factor indicate that the value of the hinging factor is higher than the threat factor.

Tabel 4. Tabel *External Factor Summary*

No.	Opportunity	Code	Value	Score	Value x Score
1	Available water resources that are easily obtained	P1	0,09	4	0,37
2	There is cooperation (partnership) for aquaculture production	P2	0,09	3	0,28
3	A relatively easy marketing channel especially to the West Java region	P3	0,05	3	0,15
4	Stable seed prices	P4	0,05	2	0,10
5	Can be supported by government funds (APBD)	P5	0,07	4	0,29
6	UPTD's reputation as a seed supplier already exists	P6	0,05	3	0,15
7	Market accessibility in Kab. Bantung is quite adequate	P7	0,09	2	0,18
TOTAL			TOTAL		1,52
	Threat				
1	lack of access to get capital, especially in banking	A1	0,12	3	0,36
2	Source of feed that is still obtained from outside (there is no independent feed)	A2	0,09	4	0,38
3	customer satisfaction, especially in the handling of complaints, suggestions and input not yet optimal	A3	0,07	3	0,20
4	Product competitors from outside Kab. Bandung	A4	0,12	2	0,24
5	The price of feed is quite expensive	A5	0,09	3	0,28
TOTAL			0,5		1,47

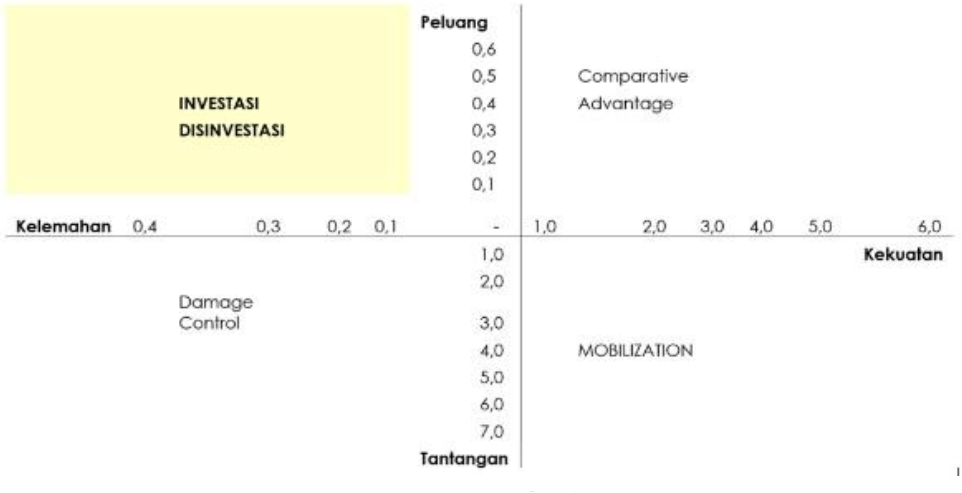
Strategy Matrix Analysis

IFE (Internal Factor Evaluation) analysis is a strategy formulation tool that summarizes and evaluates the main strengths and weaknesses in the functional area of business. It also forms the basis for identifying and evaluating relationships between these areas (David 2010).

EFE Analysis (External Factor Evaluation) is a strategy analysis tool that can be applied in a company to identify and evaluate the main opportunities and threats to the company's external business environment. External data is collected to analyze matters

relating to economic, social, cultural, demographic, environmental, political, government, legal, technological and competitive issues (David 2010).

Strategy matrix analysis is a strategy formulation tool that uses the company's internal and external factors. The results of the IFE and EFE matrices are entered into the strategy matrix to see which strategies the company will implement. Strategy matrix analysis aims to obtain a business strategy.



Gambar 1. Matriks Strategi

This strategy is implemented based on the utilization of existing opportunities by minimizing existing weaknesses. The company faces enormous market opportunities, but on the other hand it must face some internal obstacles / weaknesses. An effective way is to review the technology used for or by offering new products.

Conditions which must support the diversification strategy, despite facing various threats, this business still has strength from an internal perspective. The strategy that must be applied is to use power to take advantage of long-term opportunities by means of a diversification (product / market) strategy. Aquaculture businesses included in this category are catfish. Strategy: intensive (market penetration, market development, product development), concentric diversification. This can be done by starting the production of broodstock to meet the needs of the fish consumption market in Bandung Regency

Conclusion

1. Three main commodities that can be developed at UPTD BBI Kab. Bandung is tilapia, catfish and *Cyprinus carprio*.
2. In an effort to optimize the performance and productivity of BBT UPTD Kab. Bandung, it is necessary to improve facilities and infrastructure, increase seed production, implement main production, improve internet access for e-commerce development and add main products in the form of parent products
3. The development strategy is carried out with an investment strategy that is by producing breeders from the three commodities developed

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