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ANALYTICAL BUSINESS DEVELOPMENT ON NEON TETRA (*PARACHEIRODON INNESI*) ORNAMENTAL FISH CULTIVATION

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KeyWords
CATWOE, Business Development, Neon Tetra, SSM

ABSTRACT

Analytical Business Development on Neon Tetra (Paracheirodon innesi) Ornamental Fish Cultivation Research had executed from February 2016 to June 2016. The purpose of this research is to assess factual condition, build conceptual models and decide development strategies. Soft System Methodology (SSM) is used to analyze data. In some parts, factual conditions of the Neon Tetra cultivation business in Bojongsari were not suitable on CBIB rules, Pokdakan had not maximized group's agenda, cultivators' income could be optimized, and lack of promotion action. As results of CATWOE analysis, cultivation in Bojongsari District is suggested to make study, policy, and systems about product's standard, strengthen the function of pokdakan and create an effective and sustainable marketing strategy to attract new customers.

INTRODUCTION

Ornamental fish, both of freshwater and saltwater ornamental fish, are fisheries mainstay comodities which are contributed on foreign exchange's income. Neon Tetra (*Paracheirodon innesi*) is a freshwater ornamental fish favored by ornamental fish lovers. Neon tetra has some advantages over other ornamental fish species. The species has beautiful body with sparkling blue lateral stripe, easy to maintain, does not require a large aquarium, cheap feeding, and long life (up to 5 years). The blue stripes on neon tetra's body is needed in cosmetics industry. Depok is one of ornamental fish central place in Indonesia which as Bojongsari as a subdistrict with the biggest production value of ornamental fish cultivation. Development of Neon Tetra ornamental fish cultivation business in Bojongsari District Depok City is required.

This research aims to:
1. Analyzing the factual condition of Neon Tetra fish farming business in Bojongsari District
2. Analyzing the conceptual model of Neon Tetra fish cultivation business in accordance with the existing theories
3. Analyze the cultivation business development strategy that must be done by Neon Tetra cultivators in Bojong-sari sub-district.

METHODS

The research is qualitative research. The type of data used is primary data and secondary data. Primary data obtained from observation, interview, and questionnaire to related parties. Secondary data obtained from the literature, internet and institutions (Department of Fisheries and Agriculture Depok). The data taken in this research is taken by purposive sampling. Purposive Sampling is a technique to collect data intentionally. The selected respondents is three fish farmers from different fish cultivation's group (Pokdakan). Business development is analyzed using SSM (Soft System Methodology) analysis. SSM analysis is conducted to determine problems encountered in Neon Tetra ornamental fish farming business. Encountered problems faced in factual condition of unstructured conditions are categorized into 4 aspects. These aspects are technical aspect, institutional aspect, marketing aspect, and financial aspect. Productionl aspect includes everything related to Neon Tetra fish cultivation process such as (1) aquarium preparations, (2) selection and fish parent maintenance, (3) spawning process, (4) fish larvae maintenance, (5) enlargement and fish seed maintenance, (6) harvesting, sorting, and packaging, (7) aquarium maintenance, (8) desease handling, and (9) CBIB rules . Marketing aspect includes factual marketing conditions which are place, price, product, promotion, and marketing channels. P;ace oe land area influences productivity (Handaka et al 2018). The institutional aspect includes analyze problems that exist in related institutions and in Pokdakan. The financial aspects includes Business Income analysis, Revenue Cost Ratio (R / C) analysis, Payback Period (PP) analysis, and Break Even Point (BEP) analysis.

After looking at the problems encountered, the analysis continued with a literature study of the theories that should be applied to the system then conceptual model emerged. Stages of searching related theories to the conceptual model exist in thinking system. In thinking system, related parties relation connected with CATWOE analysis. In CATWOE, related parties clasified as Customer, Actor, Transformation process, World, Owner, and Environment. Next step is build conceptual models for every aspect. Once the conceptual models are formed, models compared to factual condition in the real world. Then the divergency between them are put as strategy planning to achieve development desired. The final stage of this analysis is to take action to correct the problem situation.

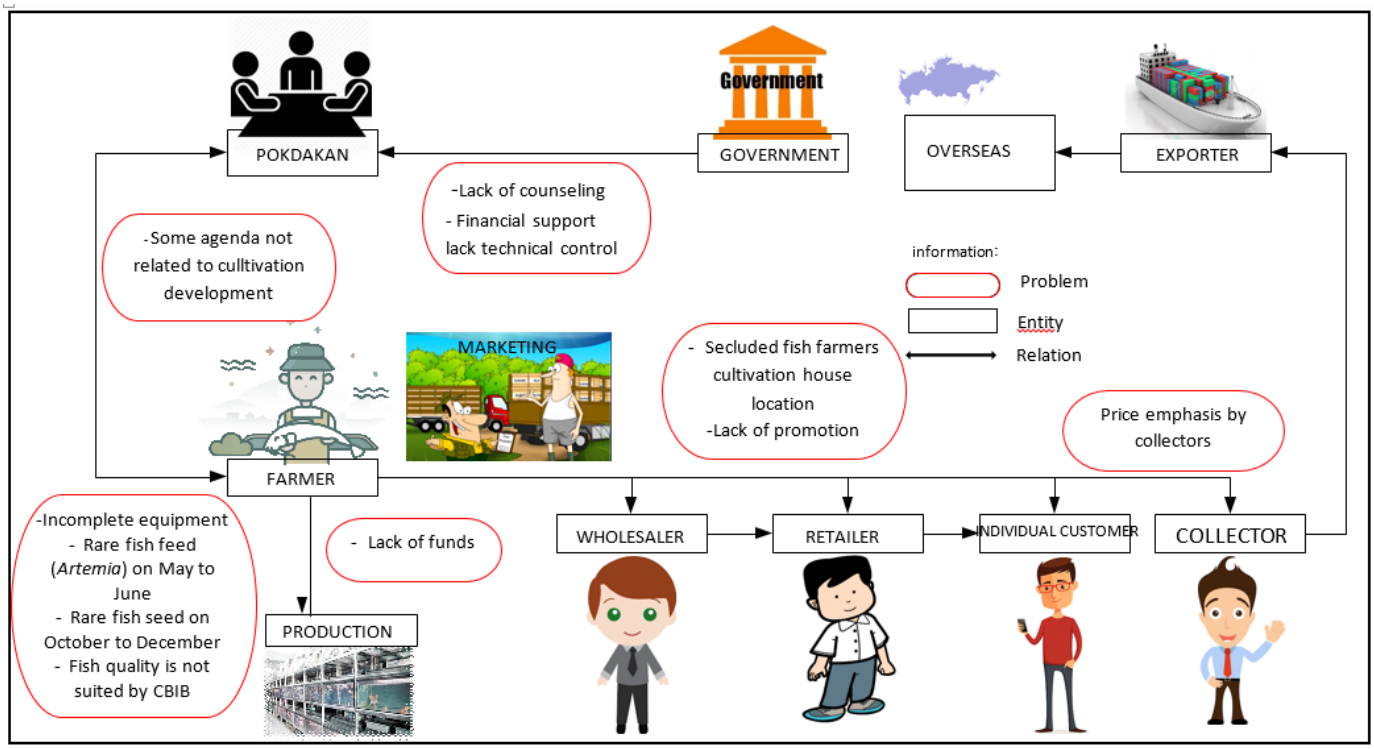
RESULT & DUSCUSSION

SSM is a process to manage ways to achieve the target. The target is to develop Neon Tetra cultivation business in Bojongsari subdisrict. According to Checkland (2001), SSM is done through seven stages. The steps are (1) Entering and expressing problems, decomposition of factual conditions based on 4 Aspects of Analysis; Production analysis, Institutional Analysis, Marketing Analysis, and Financial Analysis. A summary of the problems inferred from entering process and expressing problems process experienced by Neon Tetra fish farmers in Bojongsari Subdistrict served on tabel 1 below:

Tabel 1. Summary Problems

No	Aspects	Problems
1	Productions	-Incomplete equipment
		-Rare fish feed (*Artemia*) on May to June because the farmer still imported Artemia
		-Rare fish seed on October to December
		-Fish growing not suited by standards
		-fish quality is not suited by CBIB
2	Institutional	-lack of counseling given by government
		-Government's financial support lack technical control by goverment and pokdakan
		-Some Pokdakan's agendas not related to cultivation development
		-Fish farmers' data need to be maintained by government
3	Marketing	-Secluded fish farmers cultivation house location
		-Price emphasis by collectors
		-Lack of promotion
		-Lack of funds
4	Financial	-Less organize financial record

(2) The conflict situation occurs Neon Tetra fish farmers is described in Rich Picture.Rich Picture shown in Picture 1.



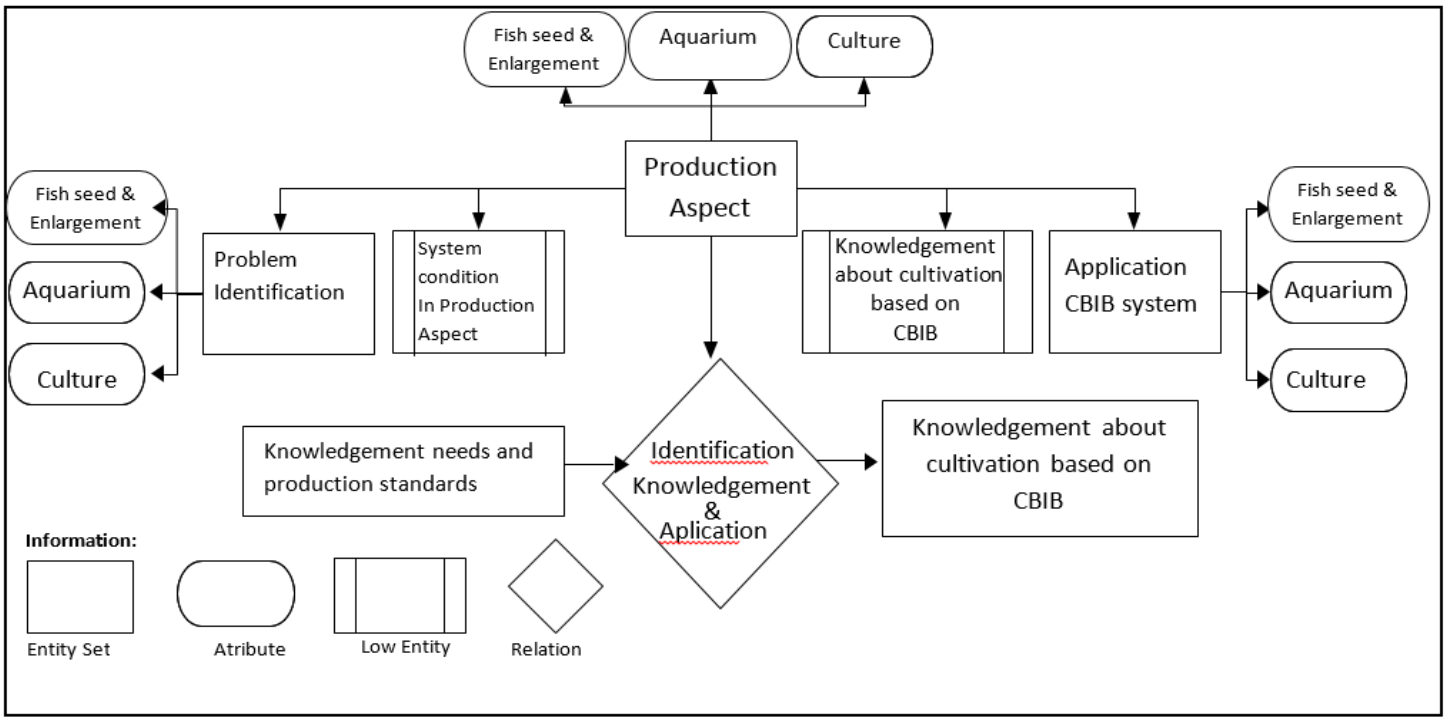
(3) System definition with classifying related parties by CATWOE as shown at tabel 2.

Tabel 2. CATWOE

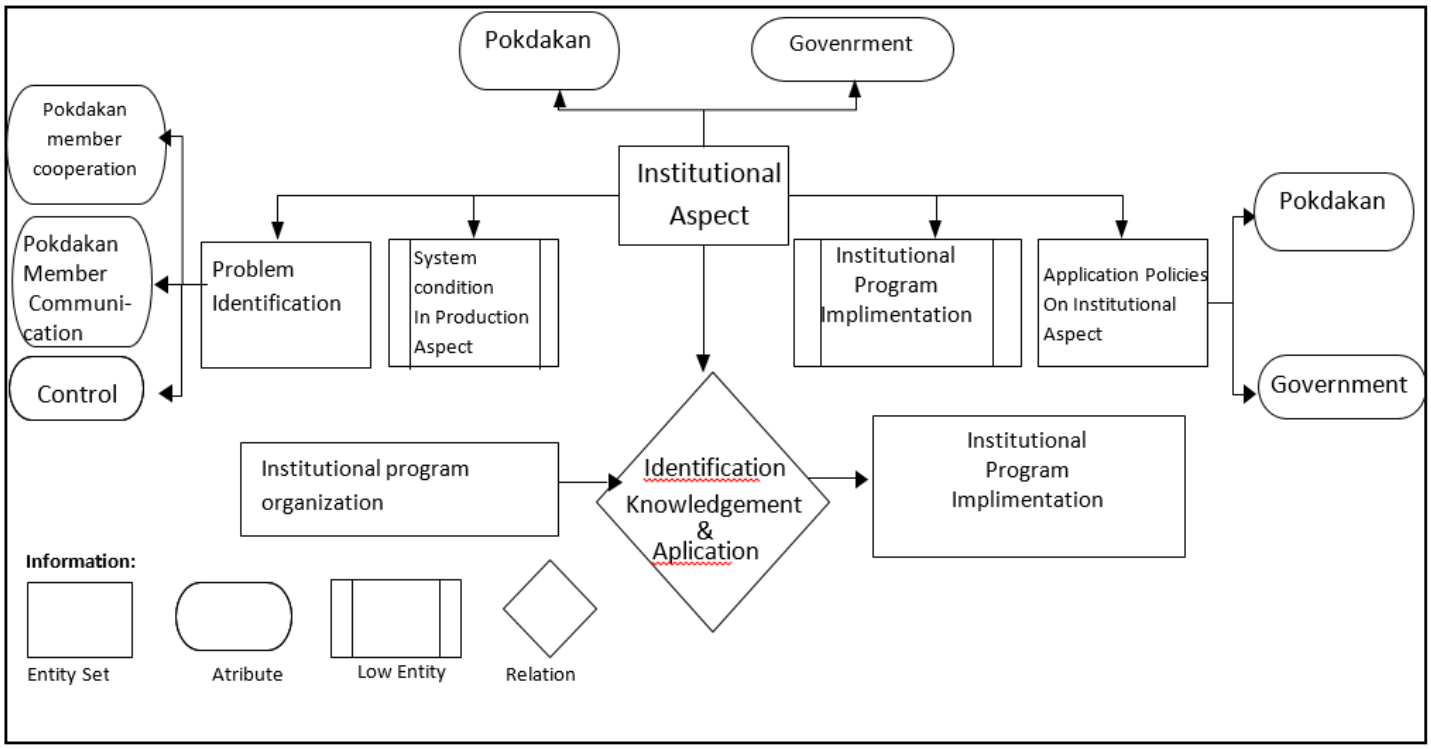
No	Component	Problem definition result
1	Customer	Buyer of Neon Tetra
2	Actor	Fish farmers of Neon Tetra in Bojongsari Subdistrict
3	Transformation process	Production activities, institutional activities, and Marketing activities
		Realization of Neon Tetra fish farming activities accordance with the provisions in all aspects related to production
4	World view/ weltanschauung	Establishment of good cooperation between the institutions / organizations involved in the fish farming activities Tetra Neon in District Bojongsari.
		Establishment of a profitable and sustainable marketing activity.
5	Owner	Neon Tetra fish farmers in Bojongsari District, Fish Cultivation Group (Pokdakan) in Bojongsari District, and Depok City Government
6	Environment constrain	Government regulation concerning activity of Neon Tetra fish farming business.

(4) The formulation of the conceptual model of neon tetra fish cultivation in Bojongsari District is used to help prepare the problem so that it can give the final result of problem correction strategy. Conceptual Model for Technical Aspect, Institutional Aspect, and Marketing Aspect are shown as picture 2, picture 3, and picture 4.

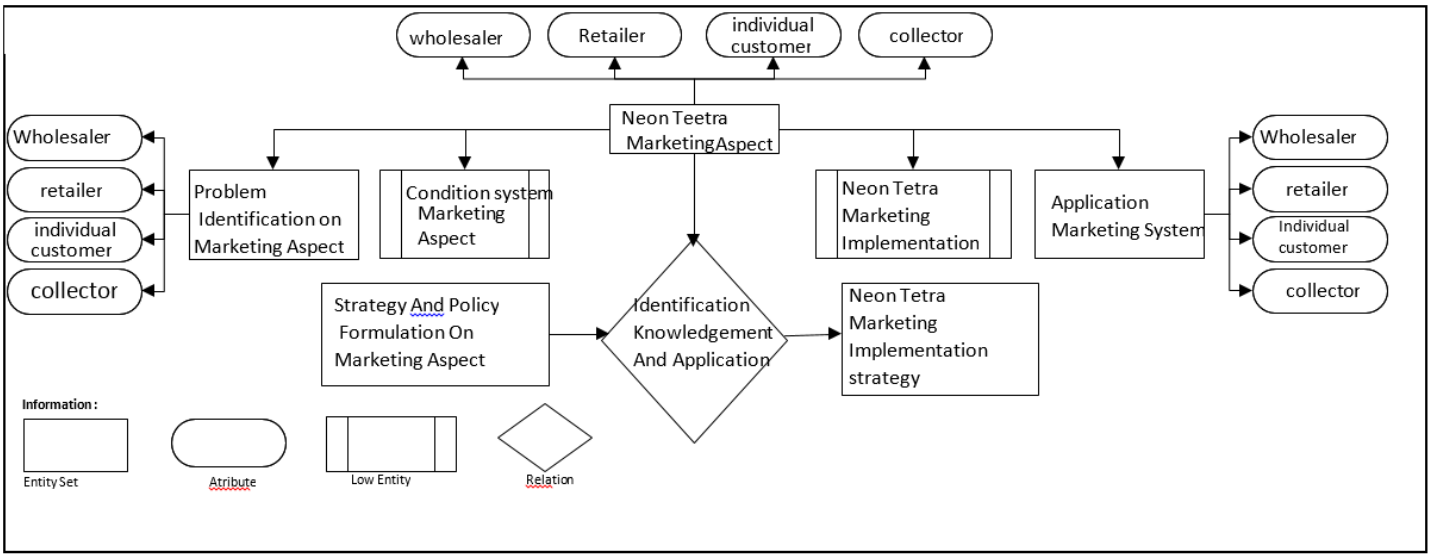
Picture 2. Conceptual Model for Production Aspect



Picture 3. Conceptual Model for Institutional Aspect



Picture 4. Conceptual Model for Marketing Aspect



(5) The comparing step between the conceptual model and the factual condition will describe the circumstances that occur in the neon tetra fish cultivation business conducted by the farmers in Bojongsari District.
Comparison of factual situation and conceptual models on neon tetra fish cultivation is shown as Table 3.
Table 3. Comparison of factual condition and conceptual models

No	Root definition	Productionl Aspect	Institutional Aspect	Marketing Aspect
1	Customer	Neon tetra fish farmers in Bojongsari sub district	Neon tetra fish farmers in Bojongsari sub district	Individual customer, retailer, wholesalers, and collectors
2	Actor	Neon tetra fish farmers in Bojongsari sub district	Neon tetra fish farmers in Bojongsari sub district, pokdakan in Bojongsari sub district, Dinas pertanian dan perikanan Depok City (Distankan)	Individual customer, retailer, wholesalers, and collectors
3	Transformation process	Stages of cultivation activities according to CBIB rules	Cooperative activities among Pokdakan members and cooperation activities with the government.	Pricing, product packaging, sales location, promotion media promotion
4	World view/ weltanschauung	Total fixed production cost, total variable production cost, total production cost, production amount.	The coordination formation between Pokdakan members and the government.	Amount of revenue, profit, BEP price, BEP product, R / C, and Payback period.
5	Owner	Neon tetra fish farmers in Bojongsari sub district	Government	Neon tetra fish farmers in Bojongsari sub district
6	Environment constrain	CBIB, nature factor and technology	Government	Demography factor, economic factor, technology factor, and competitor

(6) The next stage is to define and select options that are considered to be used to achieve ideal conditions. Changes made is an effort to repair problems that occur in the business of Neon Tetra fish farming in Bojongsari District. Conceptual model that has been created manages spreading the knowledge of production standards, institutional strengthening and marketing strategy to the farmers. The system is designed to ensure the sustainability of cultivation activities.

(7) The improvement effort is the implementation of expected changes. The expected changes are form of strategies to develop cultivation business of Neon Tetra ornamental fish.

Improvement efforts to overcome the problems that occur in Neon Tetra fish farming business in Bojongsari District are shown as table 4.

Table 4. Improvement efforts on Neon Tetra cultivation business on Bojongsari subdistrict

No	Aspect	Problem	Improvement Effort
1	Production Aspect	Incomplete equipment	Make a list of equipment that must be owned by the farmer and complete the equipment owned
		Rare fish feed (*Artemia*) on May to June because the farmer still imported Artemia	Self-cultivated Artemia and doing forecasting orders or stock storage
		Rare fish seed on October to December	increasing fish seed supplier
		Fish growing not suited by standards	Distankan conduct training or counseling regarding fish maintenance according to CBIB standard
		Fish quality is not suited by CBIB	Make a more practical and applicable module to Bojongsari District based on CBIB
2	Institutional Aspect	Lack of counseling given by government	Create transparent information system on donation so that both the farmer and the government could monitor
		Government's financial support lack technical control by goverment and pokdakan	Annual record of farmers' information by the Distankan every year
		Some Pokdakan's agendas not related to cultivation development	Conducted survey and assessment of information needed or agendas required in the development of cultivation
3	Masketing Aspect	Fish farmers' data need to be maintained by government	Farmers install road signs on the highway to the cultivation house, or government provide the central cultivation in a more strategic place
		Secluded fish farmers cultivation house location	Government make a price control supervisor
		Price emphasis by collectors	Make ornamental fish exhibitions out of town or use online media as a promotion event
		Lack of promotion	Create a savings and loans cooperative with a transparent financial system
4	Financial Aspect	Lack of funds	Conduct training on financial management of farmers

Table 4 above shows that proposed improvements that can be suggested and can be run on aspects of production, institutional aspects and aspects of marketing must be run well so that business development is running optimally.

Conclusion

Based on the research conducted can be concluded as follows:

1. The factual condition in production aspects of Tetra Neon cultivation is not accordance with CBIB principles. In institutional aspect, the function of pokdakan can be maximized. In the financial aspect, production costis high but the results are less optimal and farmers' financial system is not well orginazed. In the marketing aspect, lack of promotional accomodations.

2. Conceptual model on production aspect is making standard production policy, making monitoring system according to CBIB. The conceptual model in the institutional aspect is to strengthen the institutional function, especially pokdakan. Conceptual model on the marketing aspect is a sustainable and effective marketing strategy to attract new customers.

3. Strategy of cultivation business development which must be done by Neon Tetra farmers in Bojongsari District is to make improvement effort, at production aspect to hold training or counseling about fish maintenance according to CBIB standard, and made more practical and applicative module which is adjusted to Bojongsari District based on CBIB. In the institutional aspect of improvement strategy that can be done is made a transparent information system about donation by government so that the cultivators and government can monitor. In addition made an integrated database system on each cultivator so that it can be done periodic renewal. The next strategy is to conduct surveys and inventory data of information needs or agendas required in the development of cultivation. Strategies that can be done on the financial aspect is to create a savings and loan cooperative with a transparent financial system and conduct training on financial management of farmers. Strategies that can be done on the marketing aspect is to make a pointer and access, or can also provide a central cultivation in a more strategic place, and make ornamental fish exhibitions outside the city or use online media as a promotion event.

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