



# Shrimp Farming Business Ecology: Internet of People (IOP)-Based Digital Marketing

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**Abstract.** This research was conducted with the aim of knowing the ecology of the exclusive vannamei shrimp pond business. Good ecology will have an impact on the yield of vannamei shrimp ponds. High yields will encourage increased marketing of vannamei shrimp. This is good and the results are increasing through the marketing mix. This research was conducted at PT. Sebalang Berkah Tarahan Village, Katibung District, South Lampung Regency. The method used in this research is qualitative method. From the results of the study that the hatchery carried out at PT. Sebalang Berkah started with the distribution of 12 ponds, with a total stocking of 150,000 vannamei seeds per pond that produced 2.5 tons per pond at harvest. Based on these data, it shows that the ecology of the pond environment is in good condition. Meanwhile, efforts to increase the marketing of vannamei shrimp seeds are carried out with a marketing mix strategy, namely product, price, place, promotion, people, process, and physical environment.

**Keywords:** ecology · Vannamei Shrimp · IOT

## 1 Introduction

The aquaculture business consists of tiger prawns and vannamei. Tiger shrimp cultivation is experiencing many problems at this time, environmental ecology is one of the success factors for the vannamei shrimp pond business. The presence of vannamei shrimp in the midst of a crisis of problems in maintaining tiger tigers against disease is a commodity that is welcomed by shrimp farmers [1].

The characteristics of vannamei shrimp growth are very fast, so that the harvest period is short (100 days), tolerance to viruses, and survival in the low salinity range. Availability of sufficient seeds is one of the main factors in vannamei shrimp cultivation, the existence of a shrimp hatchery is expected to help the needs of pond farmers in the availability of seeds, because seeds from nature are deemed unable to meet the needs of pond farmers in terms of quantity.

In the Lampung area itself, it has long been known as a center for vannamei shrimp (*Litopenaeus vannamei*) cultivation, both from enlargement or hatchery cultivation. PT.

Sebalang Berkah is one of the companies engaged in the vannamei shrimp hatchery). Intense competition in the world of marketing has resulted in the management of PT. Sebalang Berkah continues to develop to improve optimal marketing. Therefore, appropriate strategies are needed in the vannamei shrimp marketing mix so that they can meet effective targets, and the strategies carried out must be in accordance with the company's circumstances where the amount of available funds must be taken into account with the amount of benefits obtained from the activities carried out by the company. The marketing mix has a very important role for the success of the company in general and in the field of marketing in particular. In addition, the applied marketing mix must be seen and developed in accordance with market developments and the market environment.

## 2 Literature Review

### A. *Internet Of People*

Understanding the internet of people is a connection between humans who are connected by the internet.

### B. *Coastal Ecology*

Good coastal management will affect the ecology. Coastal business potential for the welfare of the community must be managed properly. The main things that become a part are the economy, consumption and production as well as the health of the sea water.

### C. *Marketing Mix*

The definition of the marketing mix is as follows: the marketing mix is a device consisting of product, price, promotion and distribution, in which it will determine the level of marketing success and all of it is aimed at getting the desired response from the target market (Kotler and Keller, 2007).

## 3 Research Methods

This study uses a qualitative descriptive method which means to describe a research subject. In this case, it is the SDGs for the use of coastal land for the community. The type of data used is qualitative data, namely primary and secondary data.

### A. *Primary data*

Primary data is in the form of data sources that directly provide data to researchers or data obtained directly from the field.

### B. *Secondary Data*

Secondary data is a data source that provides indirect data to data collectors (researchers), or data taken by researchers to support scientific research, such as using literature studies, books, journals, articles and other sources.

### C. *Data analysis method*

This study uses a qualitative descriptive data analysis method, namely the process of collecting data directly on the ecology of coastal land.

## 4 Results and Discussion

### A. *History of PT. A Blessing*

PT. Sebalang Berkah is a household-scale company located on the Trans Sumatra road, Tarahan Village, Katibung District, an intensive vannamei shrimp enlargement business with the start of production of 4 ponds in late 2019. Then in 2022 the number of production ponds will be 12.

### B. *Organizational Structure and Workforce*

The organizational structure of PT. Sebalang Berkah consists of the chief director, marketing department, employees and technicians.

### C. *Vannamei Shrimp Seed Stocking*

In the process of spreading vannamei seeds, it is done when the air temperature is not too hot. Vannamei seeds are distributed by special technicians and assisted by pond employees (Fig. 1).

### D. *Feeding*

Vannamei shrimp feed varies in terms of size. At the beginning of the stocking of vanamei shrimp feed was coded 01, followed by 02 and so on. In a day feeding is done 4 times. Starting at 08.00, 10.00, 14.00.17.00.

### E. *Growth Observation*

The growth of vannamei shrimp will be sampled when it is 40 days old which is done every 2 weeks. During sampling, the experiment was taken 3 times. Sampling was carried out in the morning.



**Fig. 1.** (Seed Spreading)

## F. *Water Quality Management*

The condition of the water in the pond can be seen from the color of the water which varies. Maintenance is carried out by reducing and adding pond water in an indefinite period of time. In addition, the pond water will be given the nutrients or vitamins needed by the vannamei shrimp. From the color of the pond water, it can be seen the ecological condition of the existing plankton.

## G. *Disease Control*

Disease control is done by not frequently monitoring the newly stocked vannamei shrimp. The disease that usually arises is stress, in addition to giving vitamins when the shrimp looks easy to cramp makes the percentage of vannamei shrimp live high. In addition, the presence of tubs/ponds when harvesting makes the disease can be minimized.

## H. *Harvest*

Vannamei shrimp harvesting process can be done 3 times in each production cycle. This is often called partial harvest and total harvest. Partial harvesting is done so that the pond population is not too dense so that the growth of vannamei shrimp can be maximized and the size produced exceeds the target.

Marketing is an effort to obtain a profitable position in a transaction so as to get a large margin. The marketing process carried out by PT Sebalang Berkah uses social media web, blog, Instagram, Facebook or WAG. The public can also order from buyers who already have an android application. The marketing area covers East Lampung and Bandar Lampung.

## I. *Marketing Mix*

### 1) *Product*

PT Sebalang Berkah's Vannamei shrimp products are export quality. With intensive pond management, the shrimp produced has a high market value. Perkolam products can reach 2.2–2.8 tons (Fig. 2 and Table 1).

### 2) *Price*

PT Sebalang Berkah at harvest time chooses the buyer with the highest price and cash payment. Determination of the price of shrimp itself based on the size produced. With a size of 30 or one kilogram which is produced containing 30 shrimp, it will have a good selling price in the market.

### 3) *Place*

Access to the location of PT Sebalang Blessing's vannamei shrimp pond is very strategic. There are two access roads to the location from the Trans Sumatra road. First, the village road and the beach road. With a distance of approximately 3 km.



**Fig. 2.** Partial Harvest of Vannamei

**Table 1.** PRODUCTION OF VANNAMEI SHRIMP

	2020	2021	2021	2022
Pool	8	8	12	12
Ton	15.7	16.3	24.7	27.9

4) *Promotion*

The promotion carried out by PT Sebalang Berkah uses social media and WAG. This is done with the aim of getting the best price at the time of sale.

5) *People*

PT Sebalang Berkah continues to improve employee capabilities with the aim of increasing the quantity and quality in the production process of vannamei shrimp enlargement. One way to do this is by having expert technicians who are ready to share with other employees.

6) *Process*

This process section consists of various procedures for activities carried out by PT Sebalang Berkah during the production process, after the production process and before the production process is carried out.

7) *Physical Environment*

PT Sebalang Berkah's environmental conditions are very good, this is certainly very supportive of the success of the vannamei shrimp rearing process. Measurements taken include pH, salinity and also the condition of the bacteria around the pond.

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