

STRATEGY OF BUSINESS MANAGEMENT AND AGRIBUSINESS  
SYSTEM OF BALI CATTLE BREEDING TO IMPROVE FARMERS INCOME

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ABSTRACT

A Survey was carried out using questionnaires as data collection tools in the Village Breeding Centres (VBC) at 5 regencies in Bali. These VBCs were supervised by Bali Cattle Breeding Centre (*BPTU*). Locations of this study were selected using purposive random sampling and respondents were selected by stratified random sampling. The respondents consisted of 90 farmers and 10 experts who were chosen from *BPTU*, Department of Livestock and Animal Health, and Udayana University. Quantitative and qualitative data were derived from primary and secondary data. The data were collected by interview using structured questionnaires, indepth interviews, observation, study of literature and documents. The data were analyzed using internal and external analysis, Strengths-Weaknesses-Opportunities-Threats (SWOT) analysis, Quantitative Strategic Planning Matrix (QSPM) analysis, and Interpretative Structural Modeling (ISM) analysis. The aims of this study were to find out the strategy of business manajemen and agribusiness system of Bali cattile breeding in order to improve farmers income. The results showed that eight strategies were found in bali cattle breeding consisted of improvement of calf quality by continous selection and breeding system, certification of selected calves, to built animal feed industry, improving Bali cattle breeding business efficiency, developing one village one product program, built a farmers cooperation, intensifying the extension program, and increasing farmer's entrepreneurship. The strategy of increasing the entrepreneurship spirit of the farmers was the first priority to create bali cattle breeding enterprise more efficient and improve farmers income. These strategies should be followed by cluster system in business of Bali cattle breeding which is supported by the Cluster Agribusiness Management Communication Forum (CAMCF) as facilitator in relationship between farmers and other industries and institutions in the cluster with other industries and institutions in the cluster.

Keywords: strategy, agribusiness system, bali cattle breeding, farmer's income.

INTRODUCTION

Business growth of Bali cattle breeding in Bali is still very low. An average number of cows kept by farmers in Bali and Village Breeding Centre of *BPTU* averaged between 1-6 cows per farmer. The farmers kept their cows with simple management well coordination and implementation of breeding program which is consist of selection, culling and replacement of the cattle. Breeding program needs a large number of cattle to be managed in order to apply selection , culling, and replacement of the cattle. According to *UU No. 18* in 2009, animal seed stock

must have superior genetic potential to inherit and have specific requirements as breed stock.

With this Bali cattle management system in Bali and more specifically in VBC at present, it might be hard to improve income of the farmers. Therefore to enhance business of Bali Cattle breeding and increase farmers, paradigm of Bali cattle breeding should be changed to be a comprehensive agribusiness system. The business should be managed in a holistic manner which is more advanced, efficient, resilient, and satisfy market demand in terms of its continuous quantity and quality (Department of Agriculture, 2001). On farm business which is struggling in production sectors only might not increase the farmers income and their welfare (Suparta, et al. 2010). Based on the above background, it is necessary to study the strategy of management business and agribusiness systems of Bali cattle breeding to improve farmers income in Bali.

The results of this study hopefully could provide an appropriate information on business strategy and agribusiness system for breeding Bali cattle in Bali, and supported the local government of Bali in formulating an appropriate policy accelerating the growth of Bali cattle population and finally increase the income of the farmers.

## **RESEARCH METHODS**

Village Breeding Centres which were supervised by Bali Cattle Breeding Center (*BPTU*), from June to October 2013. A survey using mixed qualitative and quantitative methods was carried out in this study was used in collecting data in economic analysis of Bali cattle breeding business in Bali.

Fifty group of cattle farmers in five regencies of Bali were supervised by *BPTU* up to 2012. Respondents of this survey were determined by stratified random sampling method. The respondents were stratified into three strata namely: group leader and secretaries (strata 1), other officials (strata 2), and members (strata 3). Samples were taken at random from each stratum. Under these provisions, there is 90 respondents are chosen.

Internal and external factors were evaluated from tabulated data as matrix Internal Factor Evaluation (IFE), External Factor Evaluation (EFE), and Internal and External (IE) to answer the objective of the research. The importance level of each factor was determined by Paired Comparison method (Kinneer and Taylor, 1996). Each factor was rated from 1-4 by the formula  $A_i = X_i / \sum X_i$ . The internal factors were 1 (major weaknesses), 2 (minor weaknesses), 3 (minor strength), and 4 (major strength) while the external factors were 1 (poor), 2 (average), 3 (above average), and 4 (superior). Strategic alternatives were analyzed using SWOT analysis (strengths weaknesses opportunities and threats) (Rangkuti, 2002); Quantitative Strategic Planning Matrix (QSPM) were used in determining of the strategy (David, 2002); and agribusiness cluster model was determined by Interpretative Structural Modeling (ISM) (Eriyatno, 1999).

## RESULTS AND DISCUSSION

The IE matrix shows that the values of IFE and EFE were 2.39 and 3.03 respectively if that the cluster breeding business in the VBC felt in the second cell which was categorized as grew and supervised (Figure 1). According to David (2002) the appropriate strategy for in the second cell is an intensive strategy (market penetration, market development, and product development) or integrative strategies (backward integration, forward integration, and horizontal integration). This business should conduct an evaluation in its market approach which has been done so far.



Figure 1 Internal and External Matrix

Bali cattle breeding businesses are in industries with rapid market growth. However, farmers do not have the ability to enter the market and compete effectively, so that the necessary remediation attempts the market approach and the increasing competitiveness of farmers. Intensive strategy is the main option that can be used in an effort to increase income of farmers and improve the growth and sustainability of the business. The company is located on the second cell can create a strategy that aims to expand the market, production facilities, and technology through internal development and acquisition or joint ventures with other companies in the same industry (Rangkuti, 1997).

Based on the results of the SWOT analysis has been done, it could be formulated eight strategies in Business of Bali cattle breeding in order to increase the income of farmers as follows:

### 1. Calves clasification and certification

Classification calves followed by are needed to improve the quality of livestock and their price. Business of cattle breeding may produced three clasification of calves i.e: foundation stock, parent stock and commercial stock which has different price in the market. Classification of the product and might be followed by certification could be expected in increasing the profit margin of the business and motivated the farmers to keep the breeding cows.

## **2. Buliding animal feed industry**

Availability of animal feed throughout the year is important in running cattle breeding business, because of 60-70% of invorenment consist of feed which influence cattle performance. Decreasing of land as forage resources of the human settlement and other purpose, feed industry particularry in processing agricultural waste is needed. This industry might produce more efficient feed for cattle production. This industri might help the farmers in provding animal feed with lower price besides grass and other forage as usual feed they give to their animal.

## **3. Improving efficiency of Bali cattle breeding business**

There are several factors may improve the efficiency of cattle breeding businesses, uch as: increasing the number of cows be kept, application of new livestock reproductive technologies, and improve the management of livestock marketing.

## **4. Improving of calf quality by continous selection and breeding system**

Continues selection and breeding in cattle population could improved calves quality. However farmers in Bali kept a small number of cows (1-6 cows per farmer). Therefore, local government should in volve in Bali cattle breeding program because this program is imposible to be run by the farmers. The local government thought *BPTU* produce seed stock and distribute them to the farmers with contract system with any other agreements. By this program, the seed stock could be developed traditionally by farmers in the village. The better genetic cattle may increase their price and the farmer income.

## **5. Implementing one village one product program**

A number of farmers in one village could organized themselves as a group of farmers who keep Bali cows for breeding purposes. If every farmers keep an everage of two cows, so the organization of 50 farmers in the village manage 100 cows for breeding. The organization could manage genetic improvement of their cattle population trough selection, culling, replacement and breeding continuously. The village will produce seed stock with improve genetic potential and their proce might be better than the previous calves.

## **6. Building a farmers cooperation**

Cooperation of cattle breeders is important since this organization could organized the farmers need such as feed supplement, vaccine, medicine, marketing the product (calves), discussing new technology, etc.

## **7. Intensifying the extension program**

The objectives of livestock extension program are to introduce new innovations to farmers, motivate the farmers to implement the innovations and any other in formation and tasks to solve the problems in the field particularry related to cattle breeding management.

## **8. Increasing the entrepreneurship of the farmers**

Entrepreneurship is a creative and innovative capabilities to look for opportunities to be success. The essence of entrepreneurship is the ability to create something new and different through creative thinking and innovative action to create market opportunities, as well as the courage the challenges and risks that may be faced in order to seize the opportunities (Suryana, 2003). Entrepreneurial training was intended to improve the ethos and spirit of farmers entrepreneurship

in managing their superior potency, as well as to develop and improve their business either individually or in groups.

Based on QSPM analysis, the first priority was increasing the entrepreneurial spirit of the farmers; followed by implementing one village one product program; calves classification and certification; improving efficiency of Bali cattle breeding business; intensifying the extension programs; 6) building a farmers cooperation; 7) improving of calf quality by continuous selection and breeding system; and 8) building animal feed industry.

### **Agribusiness Cluster Model of Bali Cattle Breeding**

Increasing of farmers income could not be done by improving one sector only but should be organized in overall agribusiness system of Bali cattle breeding. This system should include on farm and off farm activities, livestock feed industries, supporting agencies (government, private and independent institutions) which merge into one cluster of Bali cattle breeding program.

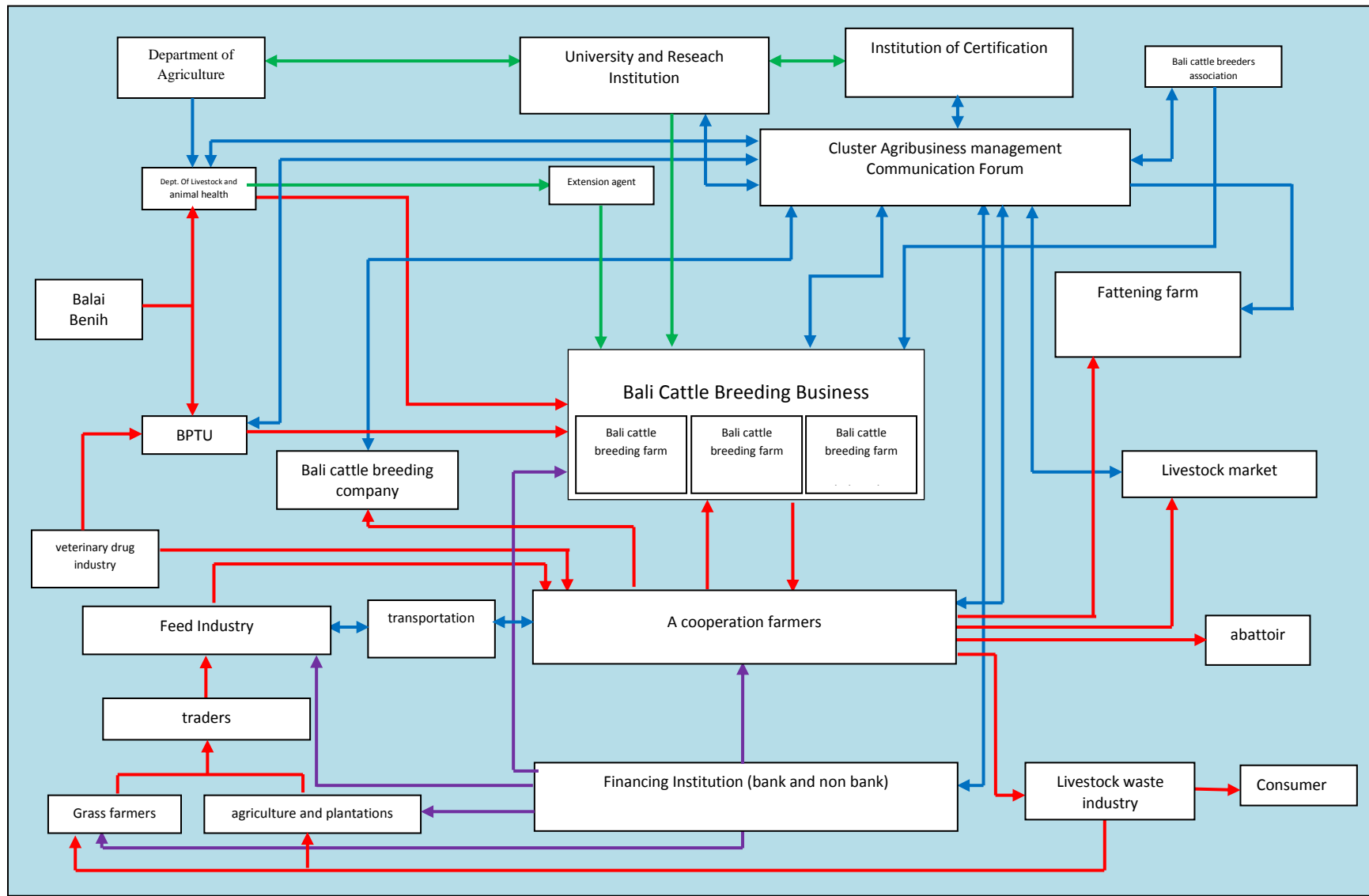
The strengthening of linkage between elements in intra and inter sectoral are essential to enhance the growth of business and increase farmers income of cattle breeders.

A cluster model of Bali cattle breeding suggested in this study is shown in Figure 2. The model shows a complex linkages between upstream, middle stream (on farm), down stream industries and supporting institutions Krova,et.al. (2013) and Udayana (2010) also reported that agribusiness cluster was really very complex with many stakeholders involved in it. Farmers as cattle breeders in the central of the cluster should have the spirit of entrepreneurship in business of cattle breeding. However nowadays Balinese farmers still lack of this spirit. Consequently, all institutions in the cluster should support the farmers in developing their business.

It could be concluded that there were eight strategies in managing business of Bali cattle breeding include increasing the entrepreneurship spirit of the farmers, developing one village one product, selection and certification of calves, improvement of business efficiency, increasing the extension program, building farmers cooperation, improvement of calves quality through continuous selection and breeding program and building animal feed industry, and intensifying a cluster system in business of Bali cattle breeding in order to improve farmers income in Bali.

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- The flow of product
- coordinating
- The flow of technology and innovation
- The flow of money

**Figure 2. Agribusiness Cluster of Bali Cattle Breeding**

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