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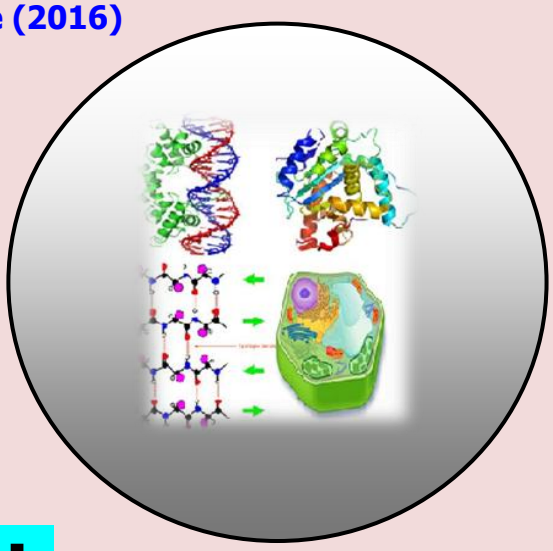

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RESEARCH PAPER

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A Development Strategy of Native Pig Farming in Nusa Penida Sub-District, Bali Province

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ABSTRACT

This is a survey research method, which aims to 1) select the base area for the development of Bali pig farm business, 2) to formulate appropriate alternative strategy in the development of pig farming, 3) recommend the priority strategy in the development of native pig farm business to increase economy in rural communities. This research was conducted in Nusa Penida Sub-district, Klungkung Regency. The research area is determined based on LQ analysis in accordance with the potential area in the development of pig farming business. Respondents used in this research consisted of 50 respondents of native pig farmers and 6 expert respondents. The data were collected using questionnaire method, in-depth interview, observation, literature and related documents. Data obtained in this study were analyzed using: LQ analysis, IE analysis, SWOT analysis, and QSPM analysis. The results of this study indicate that there are six alternative strategies offered for the development of native pig farming business in Nusa Penida Sub-district, namely: 1) Conducting training management of pig farming business, 2) Developing the tourism village concept that synergizes with native pig farming, 3) Build a livestock cooperative, 4) Build a business group of native pig farmers, 5) Increase the farmer entrepreneurship, and 6) Intensification of livestock extension activities. The priority strategy recommended in this research is developing the tourism village concept that synergizes with native pig farming.
Keywords: Native Pig, Base Area, Alternative Strategy and Priority Strategy.

INTRODUCTION

Majority of Balinese people is Hindu, who has a close relationship with pork usage as a daily consumtion or ceremonial. Bali has various of special culinary made from pork, one of them is: suckling pig. Bali pig is one of native pig owned by Bali Province, with a lard type. These types are very recommended to use as a suckling pig. The population of native pig in Bali respectively from 2011-2015 were were 272,528, 284,531, 253,841, 244,673 and 215,321 with an average growth of 1.21% per year (*BPS* Bali Province, 2016).

The highly demand for suckling pig as ceremonial and for tourism culinary is a great opportunity for native pig farming. But this time, the profile of native pig farming is using a traditional farming sistem, with a very simple management. To meet the high demand of native pig, it needs the right business strategy, for business development and marketing. In addition, it is also necessary to note the conditions of each Regency in Bali Province, so it can be determined potential Sub-district in native pig farm business development. This study aims to select the base area for the development of pig farming business, to further develop appropriate business development strategies to improve the economy of rural communities.

MATERIALS AND METHODS

This research was conducted in Klungkung Regency with the focus research are in Nusa Penida Sub-district. The location of study was determined using Location Quotient (LQ) analysis. The purpose of site selection is to analyze the base and potential area for native farming business development. The data were collected for three months, from August to October 2017. Fifty farmers were randomly selected as respondents in this study, and six expert respondents were selected by purposive sampling method based on the study criterias. Primary data were obtained by conducting interviews using questionnaires, in-depth interviews, and observations in the research area. The secondary data is obtained by searching literatures and related documents.

LQ analysis is used to analyze the condition of a region, whether the area is the sector basis or non base. According to Gibson et al (1991) and Hendayana (2003), the LQ analysis is formulated as follows:

$$LQ = \frac{vi/_{vt}}{Vi/_{Vt}}$$

Where:

vi = population of native pig in regency
vt = population of others pigs in regency
Vi = population of native pig in Bali Province
Vt = population of others pigs in Bali Province

Decision criteria:

1. If the LQ value of regency ≥ 1, then that regency is the bases area
2. If the LQ value of regency <1, then that regency is the non bases area

After founding the regency bases area, the analysis continued to find the Sub-district bases area.

The condition of pig farming business environment is determined based on Internal Factor Analysis and External Factor Analysis, so that the strength, weakness, opportunity, and threats faced in the development of pig farming business are obtained. Each factor is weighted and ranked using the Paired Comparison method (Kinnear and Tylor, 1996). According to David (2002), ranking is analyzed based on the importance of each factor, on a scale of 1 (low / poor), 2 (average), 3 (high / above average), 4 (very high), with the following formula:

$$\propto_i = \frac{X_i}{\sum_{i=1}^{n} X_i}$$

Where:

α_i = Weight of the variable-i
Xi= Weight of the variable-i
i = 1,2,3…..n
n = Number of factors

According to Rangkuti (2002), alternative strategies are analyzed using Strengths-Weaknesses-Opportunities-Threats (SWOT) analysis by comparing internal and external factors so as to obtain alternative strategies that maximize strength and minimize weaknesses, to take opportunities and avoid existing threats . The priority strategy is chosen by using the Quantitative Strategic Planning Matric (QSPM) method (David, 2002). QSPM analysis is used to evaluate the alternative strategies based on the attractiveness score of each strategy. Attractiveness score (AS) is determined by examining internal and external factors, and how the role of each factor in the process of selecting the strategy. The AS value are: 1 = uninteresting, 2 = rather interesting, 3 = interesting, 4 = very interesting.

RESULT AND DISCUSSION

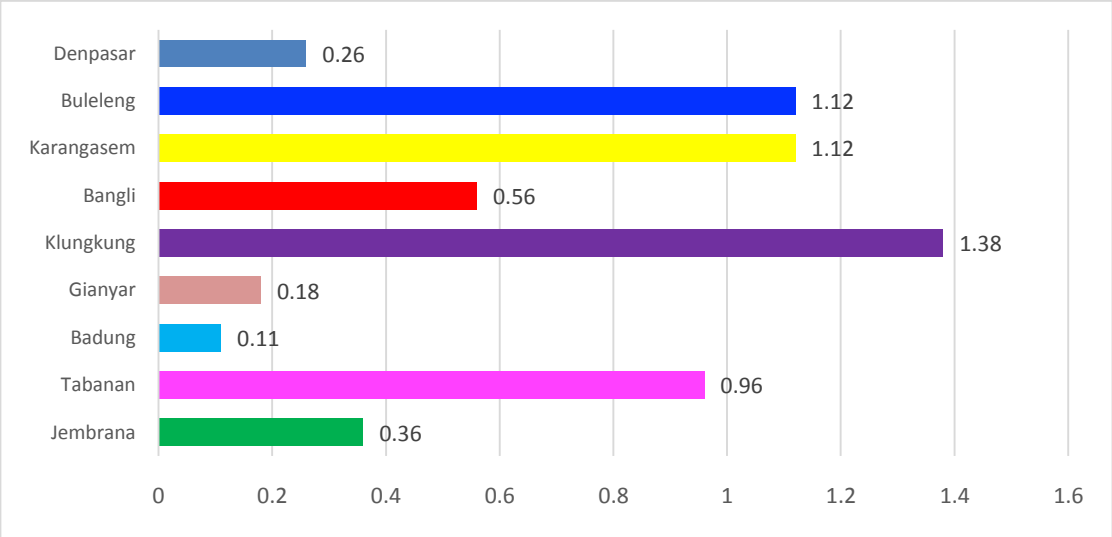
Bases Areas For Native Pig in Bali

Based on LQ analysis that has been done, Klungkung Regency is the base area in the development of Bali pig farm business in Bali. Klungkung regency has the highest LQ value of 1.38 compared to other Regency LQ scores in Bali (Figure 1).

There are four Sub-districts in Klungkung Regency such as: Klungkung, Dawan, Banjarangkan and Nusa Penda, which have different regional characteristics. Based on the analysis of LQ, it was found that of Nusa Penida is the bases area in the development of native pig farming business, with LQ value of 1.26 (Figure 2).

Native Pig Business Condition in Nusa Penida Sub-District

Based on the results of internal and external analyzes, we find the strength-weakness-opportunities-and threats faced in the development of native pig's farms , presents in Table 1 and Table 2.



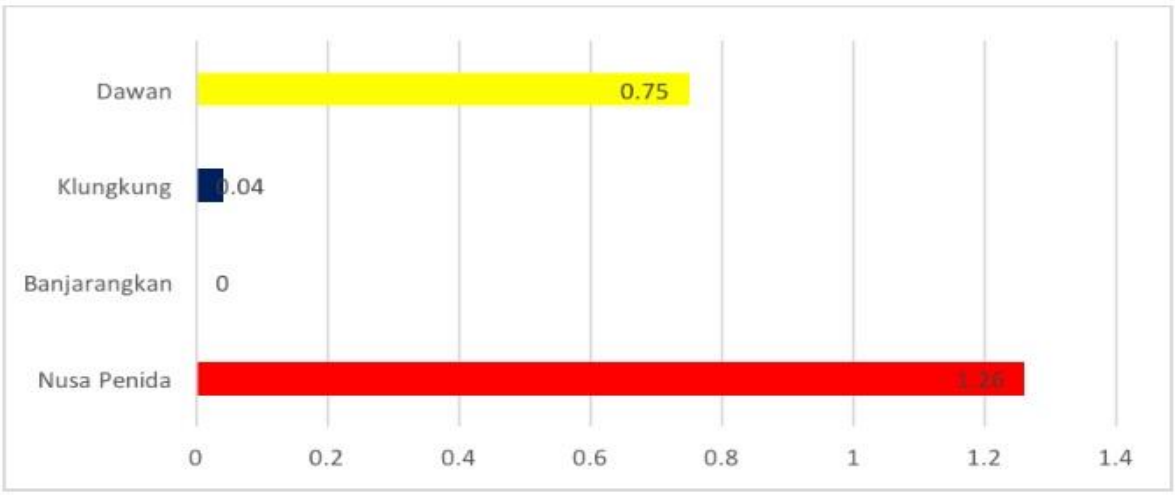
Figur 1. LQ Analysis of native pig farming in Bali.

Tabel 1. Ratings and Scores of Internal Factors.

Defining factors	Weight	Rating	Score
Strengths			
Bali pig is a genuine germplasm of Bali	0.13	3	0.40
Nusa Penida has been well known as native pig producing area	0.08	4	0.31
Native pig farming are already entrenched in Nusa Penida Sub-district	0.08	3	0.23
Livestock business is integrated with plantation and home industry of coconut oil	0.20	4	0.80
Resistant to extreme environments	0.18	4	0.71
It has a distinctive taste and recomended for suckling pig	0.16	4	0.62
Sub Total			**3.08**
Weaknesses			
Its conventionally business	0.01	3	0.03
Small scale business	0.01	1	0.01
Continuity of quality and quantity of production is not guaranteed	0.08	3	0.23
Farm location is far from market / consumer	0.08	2	0.16
Sub Total			**0.43**
TOTAL			**2.64**

Based on the internal business analysis, it was found that the total score of strengths factor was 3.08 and the total score of weaknesses factor was 0.43. In total, the native pig farming business in Nusa Penida has an internal score of 2.64. It is indicating that the business activities of native pig farming are in medium condition.

Based on the external business analysis, it was found that the total score of opportunities factor was 3.43 and the total score of threats factor was 0.31. In total, the native pig farming business in Nusa Penida has an external score of 3.12. It is indicating that the native pig farming business is in an industrial environment with high growth rate and potential to be developed. Pig farming business is in cell II of IE matrix, that is grow and build cell with medium internal condition and high industrial growth. To take advantage of existing opportunities, it is necessary to develop a business development strategy that focuses on efforts to strengthen internal business conditions.



Figur 2. LQ Analysis of native pig farming in Klungkung Regency.

Tabel 2. Ratings and Scores of External Factors.

Defining factors	Weight	Rating	Score
Opportunities			
Highly demand of native pig as raw material of suckling pig	0.26	4	1.05
Native pigs gets special attention from the government and academia	0.17	4	0.67
Tourists who come to Nusa Penida have an interest in nature, as well as local culture and customs	0.26	4	1.05
There are many villas and restaurants that produce kitchen waste as pig feed	0.17	4	0.67
Sub Total			**3.43**
Threats			
it's difficult to shipment the pig out of Nusa Penida	0.02	2	0.05
high conversion of agricultural land to infrastructure that support tourism	0.10	2	0.19
Owners of the villa complained about the existence of Bali pigs are left to roam and can damage the villa building	0.02	3	0.07
Sub Total			**0.31**
TOTAL			**3.12**

Alternative strategies

Based on SWOT analysis, there are six alternative strategies that can be applied to develop native pig farming business in Nusa Penida, namely: 1) Conducting training management of pig farming business, 2) developing the tourism village concept that synergizes with native pig farming, 3) Build a livestock cooperative, 4) Build a business group of native pig farmers, 5) Increase the farmer entrepreneurship, and 6) Intensification of livestock extension activities. Based on QSPM analysis, the priority strategy is developing the tourism village concept that synergizes with native pig farming with total attractive score 6, 85.

Nusa Penida Sub-district is located on Nusa Penida Island, which is a small island located in the southeast of Bali Island. Nusa Penida is well known as a marine tourism object. The visit of foreign tourists to Nusa Penida from year to year has increased.

The number of tourist arrivals from the year 2012 to 2016 grew an average of 21% / year (BPS Klungkung Regency, 2016). In addition to marine tourism, the tourists also began to enjoy the uniqueness of daily activities of the community of Nusa Penida, as well as activities of other customs and cultures. By applying the concept of tourism village, it is expected to occur a good synergy between the growth of tourism with the growth of the community economy based on native farming and local wisdom.

CONCLUSIONS

The conclusions of this study are: 1) the pig farming business in Nusa Penida is in medium internal condition (2.64) and high industrial growth (3.12); 2) There are six alternative strategies offered, namely: Conducting training management of pig farming business, developing the tourism village concept that synergizes with native pig farming, Build a livestock cooperative, Build a business group of native pig farmers, Increase the farmer entrepreneurship, and Intensification of livestock extension activities; and 3) the priority strategy recommended in this research is developing the tourism village concept that synergizes with native pig farming.

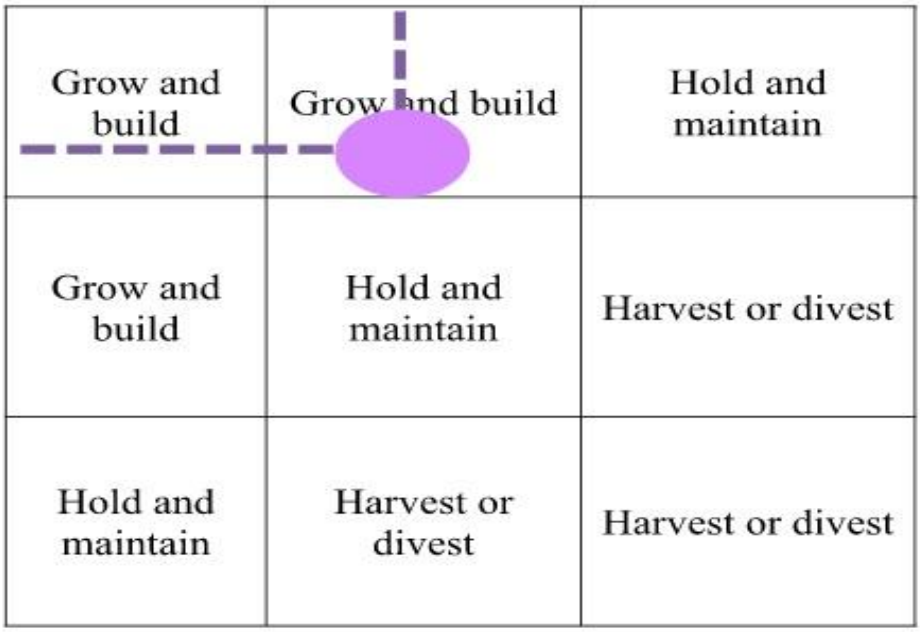


Figure 3. Internal – External Matrix.

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