

Management and Entrepreneurship Assistance for Rural Pig Farming Group in Bali

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ABSTRACT

The Community Partnership Program aimed to enhance pig farmers' swine breeding management skills and entrepreneurial orientation in Manikyang village, Bali. Through counseling and mentoring, farmers improved their knowledge of piglet selection, feed composition, and pen layout. The program also introduced online marketing strategies and basic book-keeping. Farmers displayed high enthusiasm and began to see pig farming as a profitable business. Initial challenges included misunderstandings of optimal farming practices and a lack of entrepreneurial mindset and systematic book-keeping. Despite these obstacles, the program achieved significant improvements. Farmers now understand the importance of proper management and entrepreneurial practices. However, ongoing support is essential to further enhance the farmers' risk-taking abilities and sustain progress, ensuring long-term success and development.

INTRODUCTION

The tradition of raising pigs, which embodies the local wisdom of saving, is still maintained by the community in Bali. One of the villages in Bali that continues to uphold the culture of pig farming is Manikyang village. The potential of Manikyang village lies in agriculture and livestock farming. Currently, the community has also formed fish farming group and livestock group, all of which are part of the Joint Farmers Group (Gapoktan) of Manikyang Village. Manikyang Village is located approximately 23 km west of Tabanan city center and covers an area of about 226.75 hectares.

For the Balinese (Hindus), pig farming is not just economically valuable. It encompasses a complex range of issues, from the people's economic system and Hindu beliefs in God to the socio-economic culture of the Balinese community. The connection between the Balinese community and pigs extends beyond a business perspective. For the Balinese, pigs are an integral part of Hindu-Balinese rituals or offerings. Pigs are a crucial element in the household economy of the Balinese. The issue is whether the tradition of pig farming can enhance the community's welfare. Raising pigs for profit is akin to managing a business.

Managing a business in the livestock sector is similar to managing any other business. Business management principles can be applied to livestock management. Farmers need to understand basic management to increase productivity in farming. They need to comprehend management in pig farming, from planning, organizing, directing, and supervising the process to boost productivity. Research has shown that better management processes lead to increased productivity (Tuhagana, 2018). Specifically, in pig farming, these management functions can be implemented in swine breeding. Research indicates that good swine breeding management improves the quality of pig livestock, starting from the selection of breeds, feeding patterns, and housing arrangements tailored to the livestock's needs (Tarsisia Luju, 2023). Good planning in determining housing capacity and feed provision can enhance pig productivity (Gaina et al., 2017; Malo Bulu et al., 2019). Another issue faced by farming groups is their lack of entrepreneurial orientation. Entrepreneurial orientation is essential for every organization. Research has shown that entrepreneurial orientation has a positive and significant impact on organizational performance (Sitiari et al., 2016; Indah et al., 2023).

Based on observations of farmers' problems and previous research, it is crucial for pig farmers to understand and apply management principles and possess entrepreneurial orientation in farming. Given the challenges faced by farmers, it is necessary to conduct community service activities in partnership with pig farming group. The following figure presents an overview of Manikyang village and results from interviews with the village head:

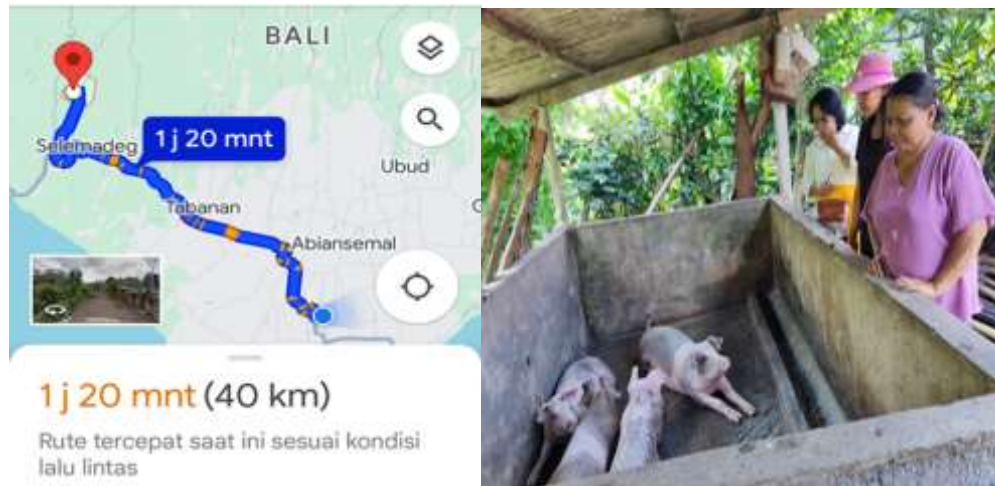


Figure 1. Location/Pig Pens of Farmers

The purpose of this community service program is to assist pig farmers in addressing the challenges they face. The community service activities, through mentoring and counseling, aim to resolve the issues:

1. Enhance partner's management skills in pig farming. Management principles in swine breeding can increase production cost efficiency.
2. Foster entrepreneurial intent. The partner expected to develop an entrepreneurial spirit in their profession as farmers. An entrepreneurial spirit is reflected in a willingness to work hard, be sincere, patient, creative, and eager to learn.
3. Improve the ability to apply technology in financial recording, production, and marketing.
4. For lecturers and students, this community service activity aims to enhance activities outside the campus.

IMPLEMENTATION AND METHODS

The methods employed in the community service activities include location surveys, observations, and interviews regarding the business situation and problems faced by the partner. This is combined with presenting an activity plan that outlines steps to address the business issues encountered. The general methods for each solution provided are described as follows: Partner will receive materials prepared by the team on the functions of business management, financial accounting systems, and digital marketing, followed by training and mentoring.

1. Issues in swine breeding: Partner will receive counseling on management practices in swine breeding.
2. Human Resource Management Issues: Partner will receive counseling on the importance of entrepreneurial spirit in farming.
3. Marketing Management Issues: Partner will be introduced to online media for marketing strategies.
4. Financial/Accounting Management Issues: Partner will be provided with a simple cash book for book-keeping and will receive guidance on how to maintain these records.

Steps in the Community Service Activity:

1. Socialization

In this stage, a location survey is conducted for the implementation of the activities. The program is socialized to the partner, and a Focus Group Discussion is held to explore the partner's issues. The methods used include observation and interviews. These methods are employed before the community service program is implemented, involving in-depth observations and interviews with partner to identify their problems, prioritize issues, and discuss appropriate solutions. This approach aims to accurately identify the partner's issues according to their business needs and capabilities, fostering their role in designing, implementing, and being accountable for the program provided. Both methods are continuously applied to identify priority issues for resolution.

2. Implementation through Counseling

The lecture or counseling method is used:

- a) Counseling on swine breeding.
- b) Counseling on entrepreneurship to enhance partner's entrepreneurial intent.
- c) Mentoring the partner in leveraging technological advancements in finance and marketing, introducing simple recording systems, and online media for marketing strategies.

Research shows that good management in swine breeding improves livestock quality, starting from breed selection, feeding patterns, and housing arrangements tailored to livestock needs (Tarsisia Luju, 2023). Proper planning in determining housing capacity and feed provision can enhance pig productivity (Gaina et al., 2017; Malo Bulu et al., 2019). Besides good management, farming also requires an entrepreneurial spirit. Research indicates that entrepreneurial orientation influences organizational performance (Sitiari et al., 2016; Indah, 2023). Based on these research findings, the following solutions are proposed:

Table 1. Issues and Solutions

Activity	Issue	Solution
Livestock management field	The partner do not fully understand the methods of selecting piglets, feed composition, layout, and capacity of the pens.	The partner will receive counseling from experts who will provide techniques or methods for selecting good piglets, knowledge on determining feed composition, and information on the optimal capacity of the pens. Partner will also be given examples of good feed.
Human Resource Management Field	The partner exhibit a weak entrepreneurial spirit, as reflected in	The partner will be counseled that pig farming can be a profitable business if managed

	their complaints that pig farming is unprofitable due to the long time required to realize profits.	with diligence, patience, and a strong entrepreneurial intent.
Marketing Management Field	The partner have not yet utilized online media for marketing.	They will be introduced to online media marketing strategies
Accounting Field	The partner manage the farms without a profit orientation and have never recorded costs such as feed expenses, etc.	The partner will be mentored in book-keeping. They will be provided with simple cash books for this purpose, assisted by students, will guide the partner in maintaining the cash books.

3. Technology Application

Technology application can be used in marketing by introducing effective online media and simple, appropriate accounting systems. Mentoring the partner in leveraging technological advancements in finance and marketing includes introducing simple recording systems and online media for marketing strategies.

4. Mentoring and Evaluation

Mentoring the partner in leveraging technological advancements in finance and marketing involves introducing simple recording systems and online media for marketing strategies. The partner is given a cash book for book-keeping, monitored for one month. Online marketing uses social media. Evaluation is conducted by distributing questionnaires to participants after the activities. Responses provide information on partner's understanding of the material presented.

5. Program Sustainability

Continuous mentoring for pig farmers is essential. Future plans include introducing a broader scope of cooperation systems to enhance the sustainability of livestock groups.

RESULTS AND DISCUSSION

Based on the results of the mentoring and counseling activities, the outcomes align with the objectives of the Community Partnership Program as follows:

Enhancing Swine Breeding Management Skills

Managing a livestock business is almost the same as managing any other business. Business management principles can be applied to livestock management. Counseling on swine breeding management has enhanced farmers' abilities in selecting piglets, determining feeding patterns, and optimizing the capacity and layout of pens. Research indicates that good livestock management improves the quality of pigs, starting from the selection of piglets, feeding

patterns, and pen arrangements tailored to the livestock's needs (Luju, 2023). During counseling, the partner was given knowledge on farming, including planning the pen location, pen size, and feed composition. Proper planning in determining pen capacity and feed provision can increase pig productivity (Gaina et al., 2017; Malo Bulu et al., 2019).

The partner reported that many pigs were diseased and they lacked knowledge of proper feed composition. It was explained that pig quality is significantly influenced by the quality of the piglets or genes, feed, and environment. Farmers must ensure the quality of piglets and the appropriate feed.



Figure 2. Swine Breeding Management Counseling

Increasing Entrepreneurial Intent

Managing a livestock business requires patience, hard work, resilience, and creativity. These traits reflect an entrepreneurial spirit. Creative skills are needed in both production and marketing processes. During counseling, the partner complained that the profits were not as expected and took a long time to realize. This reflects the low entrepreneurial spirit among the partner. Counseling motivated them that pig farming is a choice that must be pursued with sincerity, diligence, and patience. This counseling aims to boost the partner's entrepreneurial spirit. Entrepreneurship has been proven to enhance business organizational performance (Sitiari et al., 2016; Indah et al., 2023). Mentoring and training have been shown to improve the knowledge and skills of MSMEs in Denpasar (Sitiari et al., 2023). Such counseling and mentoring can also be applied to farmers.



Figure 3. Entrepreneurship Counseling

Enhancing Marketing Strategy Skills

Marketing strategy is crucial in running a business. In livestock business management, marketing plays a critical role. The partner complained about low pig prices during harvest. This counseling provided the partner with knowledge on marketing strategies using online media. Types of media introduced include WhatsApp, Facebook, Instagram, and others. Through these media, the partner can quickly obtain price information and attract buyers. Research shows that understanding and implementing digital marketing concepts can increase market reach, strengthen branding, boost sales, and sustain business growth (Meliala et al., 2019). The findings on farmers' positions in Agriculture 4.0 highlight the importance of digital marketing for farmers, applicable to the livestock business.



Figure 4. Digital Marketing Discussion/Mentoring

Improving Financial or Accounting Skills

The mentoring method was used to implement an accounting system to calculate costs accurately. A proper accounting system helps plan profits effectively and efficiently. Farmers were provided with cash books and guided on simple book-keeping methods. Assisted by students, participants followed the instructions enthusiastically.



Figure 5. Assistance in Book-keeping

Mentoring and counseling activities have improved the management skills in swine breeding, increased entrepreneurial intent, enhanced the ability to use online media for marketing, and enabled proper book-keeping according to the accounting system. Based on responses from 20 respondents after the training, the results are shown as follows:

Table 2. Respondents' Answers to The Indicators Assessed

No	X1	X2	X3	X4	X5	X6	X7	X8	
Respondent 1	5	5	4	4	4	3	4	4	4
Respondent 2	4	4	4	3	5	4	3	3	5
Respondent 3	4	4	5	5	5	5	5	5	5
Respondent 4	4	4	5	5	5	4	2	5	5
Respondent 5	4	4	4	4	3	4	4	4	3
Respondent 6	4	4	5	5	4	4	2	5	4
Respondent 7	4	4	5	5	2	5	3	5	2
Respondent 8	4	5	3	4	4	5	4	4	4
Respondent 9	4	4	5	4	3	3	4	4	3
Respondent 10	4	4	4	5	2	2	3	5	2
Respondent 11	5	4	5	4	4	3	4	4	4
Respondent 12	4	3	4	4	3	5	4	4	3
Respondent 13	4	4	4	4	4	5	3	4	4
Respondent 14	3	4	5	5	5	4	3	5	5
Respondent 15	4	4	5	4	4	4	4	4	4
Respondent 16	4	4	4	4	3	5	3	4	3
Respondent 17	5	4	4	3	3	4	3	3	3
Respondent 18	5	5	4	4	4	4	4	4	4
Respondent 19	4	4	5	4	4	4	4	4	4
Respondent 20	4	4	4	4	3	5	3	4	3

Source: data processed in 2024.

The analysis is presented in a table showing the average score of indicators. The interval class size is calculated using the statistical formula: $(5-1)/5 = 0.80$, with score ranges as follows:

1.00-1.80 = very poor

1.81-2.60 = poor

2.61-3.40 = acceptable

3.41-4.20 = good

4.21-5.00 = very good

The results of the descriptive analysis of respondents' answers are presented in the following table:

Table 3. Descriptive Analysis of Respondents' Answers

Variable	Score	Criteria
Swine breeding management skills		
Knowledge of seed selection	4,11	Good
Pen arrangements	4,10	Good
Feeding pattern	4,21	Very Good
Environmental preservation	4,31	Very Good
Entrepreneurial intention ability		

Creative in production and marketing	4,09	Good
Hard work, perseverance, patience	4,27	Very Good
Brave to take risks	3,91	Acceptable
Marketing strategy		Good
Using online media	4,13	Good
Already done the book-keeping	4,35	Very Good

Source: data processed in 2024.

The analysis of respondents' answers indicates that the willingness to take risks is rated as fairly good, while other indicators are rated good, and indicators such as feeding patterns, environment, hard work, diligence, and patience are rated very good. It can be concluded that mentoring and counseling activities have successfully improved the management skills and entrepreneurial intent of pig farmers in Manikyang village. The indicator with the lowest score is the willingness to take risks, indicating that pig farming groups in Manikyang village are less inclined to take risks.

CONCLUSIONS AND RECOMMENDATIONS

The Community Partnership Program activities proceeded as planned, with the partner participating enthusiastically from the initial socialization to the conclusion of the activities. Counseling and mentoring sessions aimed to enhance management skills in swine breeding, increase entrepreneurial intent, improve the ability to use online media for marketing strategies, and enable simple book-keeping. According to the respondents' feedback after the evaluation, the partner learned methods for selecting piglets, feeding patterns, and pen layouts. Their high level of enthusiasm during the activities reflects their desire to achieve a better life, indicating entrepreneurial intent. They also recognized the importance of using online media in marketing strategies and have implemented book-keeping in their farming operations. Counseling and mentoring sessions are highly relevant and should be continued to improve the welfare of rural communities.

Based on the results of the counseling and mentoring, technology and innovation outcomes included improved management skills in feed management, piglet selection, and pen capacity determination. The partner was provided with facilities to maintain pen cleanliness, such as shovels and buckets. In terms of human resources and marketing, the program enhanced entrepreneurial orientation based on local cultural values of "*nyamabraya*" by creating networks through WhatsApp groups. The technology used in marketing involved promoting the pig farming group in Manikyang village through online media. The evaluation of the Community Partnership Program activities indicated that the entrepreneurial orientation was rated as adequate, meaning it needs improvement. The pig farming group is encouraged to take risks and manage larger-scale farming operations. Farmers are also expected to plan for

profit margins and determine break-even points by applying accurate accounting systems.

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