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# Partnership Pattern in Bali Cattle Risk Management in Purification Cluster Area

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**ABSTRACT**

*Agricultural businesses, including beef cattle farming, are prone to risks and losses. Partnerships provide many benefits and reduce the risk of business losses through market assurance, added value, and an increased portfolio of productive assets. The Bali cattle cluster is a place of centralized development in cattle breeding to enhance high competitiveness. The study aims to build a partnership model for managing the risk of the Bali cattle business in the Bali cattle purification cluster. The research used a survey method with a descriptive qualitative approach. The results showed two partnership models in the research location: the partnership of the livestock company and the traditional partnership. Business cooperation is established in partnership with farmers by dividing profits among 50% farmers, 45% companies, and 5% farmer-livestock groups. As for traditional partnerships, farmers and owners get 50% of the profits each. So, the two business models of beef cattle farming have advantages and disadvantages. The partnership system has a good impact on farmers in managing their business risks because farmers feel helped by these two partnerships in the research location, especially for farmers who still have minimal business capital in the Bali cattle business. Future research will be maximized if it increases the number of respondents and the size of the research area to detect agricultural partnership patterns in rural areas.*

***Keywords:*** *Bali cattle, risk management, partnership, sharing, clustering*

## INTRODUCTION

The agriculture sector plays a crucial role in supporting the framework of national economic development. The bulk of the population in Indonesia still works as farmers; therefore, the nation remains significantly dependent on the agricultural industry for both a means of subsistence and a means of supporting development. Nevertheless, agricultural commodities still require policy reformulation for timely and equitable use, as they are subject to risks such as product deterioration from prolonged storage. This is necessary to ensure that products are processed quickly and used by consumers. Regarding delivering animal-based protein, agriculture has various mainstay subsectors, including the livestock subsector. Since beef commodities are the best source of protein, it is crucial to preserve their availability to meet the public's requirement for meat-based protein. Since smallholder farms account for most of the 20% of the domestic beef market, there is still much room for growth in the beef cattle farming industry.

Raising cattle, particularly Bali Cattle, benefits Indonesia's economy and agricultural sector. Bali cattle are

well known for adapting well to tropical climates and playing a significant part in satisfying domestic demand for beef. However, several obstacles face Indonesia's cattle industry, including dangers that could jeopardize the farming industry's sustainability and production. A centralized and integrated Balinese cattle rearing or culture region is required to find the purity of the breed. This would allow maximum coordination on crucial issues like breeding, cultivation, and local cattle legislation. To maintain the sustainability of the cattle farming industry in the Bali cattle purifying cluster area, issues including feed price variations and market shifts necessitate a cooperative approach to risk management (Dubie et al., 2022; Gerken et al., 2023; Khan et al., 2022; Okello et al., 2022).

An effort called the Bali cattle purification cluster seeks to raise the standard of Bali cattle while benefiting farmers financially. Cattle growing in cattle purifying clusters carries some risk even though it can boost production. Some dangers include animal illnesses, changes in feed prices, market shifts, climate change, and other factors. A thorough risk management strategy at the cattle breeding cluster area level is necessary to mitigate and manage these risks. A partnership model that entails collaboration between multiple entities, including farmers, the government, financial institutions, and the Company sector, is one strategy that shows promise. Aspects like funding, managing the health of livestock, preparing for climate change, managing livestock after harvest, and having access to contemporary technologies can all be covered by this partnership model. Increased productivity and the sustainability of the cattle farming industry have been the outcome of partnerships between farmers, the government, financial institutions, and the private sector that have shown to be successful in mitigating the risks faced by cattle farmers in the Bali Cattle refining cluster area (Ditcham et al., 2009; Dwinata et al., 2018).

It is imperative to conduct research on partnership models in cattle risk management in Bali cattle breeding cluster areas to pinpoint possible opportunities, obstacles, and effects on farmer welfare and productivity. Therefore, a better knowledge of the partnership model's application and enhanced risk management in this setting can significantly aid in the growth of Indonesia's cattle business. When mitigating the risks associated with climate change and cow health, the partnership model can be a valuable instrument in risk management for cattle (Astaman et al., 2021; Hastang et al., 2023; Rohani et al., 2021). Conversely, cattle are vital to the agricultural economy and sustainability in the Bali Cattle Purification Cluster Area. However, there are several hazards that successful cow farming must deal with, including illness, natural disasters, shifting market prices, and environmental shifts. Create an efficient collaboration approach for livestock risk management to overcome these obstacles. There is a wealth of traditional farming methods, local knowledge, and possible advances in the Bali Cattle Breeding Cluster Area.

This research aims to significantly contribute to preserving the sustainability of the cattle industry in the refining area and enhancing the welfare of nearby cattle farmers by comprehending the dynamics of cattle farming and involving pertinent stakeholders. Few scholars have attempted to investigate and develop a risk-based partnership model, particularly concerning the refining area of Barru Regency, South Sulawesi, and the farming of Bali Cattle. The idea of a partnership model in cattle risk management in the Bali cattle refining cluster area will be covered in greater detail in the following stages of this research. This model can shift perceptions and assist cattle producers in overcoming obstacles in the future. This study aims to find traditional and contemporary partnership structures (Companies) in Bali cattle farming. The study aims to build a partnership model for managing the risk of the Bali cattle business in the Bali cattle purification cluster.

## RESEARCH METHODS

### Research Site

The research was conducted in Barru district, South Sulawesi province, Indonesia. October through December 2022. This region was designated as a cluster area based on the Decree of the Minister of Agriculture No. 4437/Kpts/SR.120/7/2013, which designated Barru Regency as a Bali Cattle Breeding Resource Area (Hubeis, 2020).

### Research Approach

The research used a qualitative approach. The Qualitative method is used to understand and explain human phenomena and their contexts by collecting and analyzing non-numerical data such as text, images, or sound recordings. This approach allows researchers to explore people's meanings, views, and experiences within a broader social context.

### Informant Selection Technique

The informants were selected in a purposive manner based on research needs and the information and data that would be sought to answer research objectives. The study conducted in-depth interviews with five informants; the key informants were one from the Barru Regency Agriculture Office, two from the Partnership Core Party (Capital Owner), and five from the Head of Farmer-Livestock Group. The informants were selected based on their extensive experience and understanding of the Bali Cattle business.

**Data Retrieval Method**

*Observation*

This method involves direct and systematic observation of the research subject or environment without significant intervention or interaction. Observation collects data about behavior, interactions, contexts, or specific situations.

*Interview*

Interviews are a data collection method that involves direct interaction between researchers and respondents or research subjects to gather information, views, and a deeper understanding of a topic or phenomenon. Interviews are used in qualitative research to gain rich and deep insights.

*Documentation*

Collecting data through documentation involves collecting information from existing written or recorded sources. Documents can be writings, notes, reports, archives, pictures, audio, or video.

**Data Analysis Technique**

*Data Collection*

The process occurs early in research in which the researcher collects the information or data needed to answer the research question or achieve the research objectives. Data collection methods involve interviews, surveys, observations, archival studies, or secondary data collection.

*Data Reduction*

Data reduction is a process in data analysis that involves reducing the amount of data present to allow the researcher to focus on the most relevant and important information. This is an important step in simplifying the dataset so that analysis can be conducted more efficiently and more informative results can be found.

*Data Validity*

Data validity is a concept in research that refers to the extent to which data collected by a particular research method truly reflects the phenomenon or variable we are researching. In the context of data validity, the aim is to ensure that the data obtained is accurate, consistent, and relevant to the research objectives. Data validity is a key factor in ensuring the reliability and trustworthiness of research results.

*Data Presentation*

Data presentation is organizing, describing, and presenting the data collected in a form that is easy to understand and helpful. The purpose of data presentation is to communicate information to the audience and help them understand the findings or results of the research.

*Inference Drawing*

Inference drawing is the final stage in the research process, where we use the results of the data analysis and findings to reach relevant conclusions or generalizations related to the research question.

## RESULT AND DISCUSSION

**Bali Cattle Purification Cluster Concept**

The Balinese Cattle Refining Cluster concept is a practical approach to cattle farming management in the region. Within this framework, Balinese cattle farmers work together in clusters or groups to achieve common goals. Collaboration is key, allowing them to share knowledge, experience, and resources. The cluster's main objective is to improve Bali cattle's quality through various efforts, including increased productivity, risk management, and more efficient marketing. In addition, farmers also receive training and education to improve

their understanding of best practices in cattle rearing and sustainable farm management. The Balinese Cattle Refining Cluster concept reflects a concrete effort to improve the cattle breeding sector and promote cooperation that benefits farmers in achieving sustainability and efficiency.

In order to achieve the goal of better development of Balinese cattle farming, the Balinese Cattle Refining Cluster concept also pays attention to risk management. Farmers jointly identify the risks they may face, such as livestock diseases, feed price fluctuations, and climate change, and work together to reduce or manage these risks. This creates a more stable and sustainable environment for farmers, minimizing potential losses. Over time, the efforts of the Bali Cattle Refining Cluster have also had a positive impact in improving market access for farmers. By working together in clusters, they can sell their products more efficiently, access a broader market, and obtain competitive prices. This provides an important economic incentive for farmers to participate in the Bali Cattle Refining Cluster concept actively.

Overall, the Bali Cattle Refining Cluster is an approach that combines collaboration, quality improvement, risk management, education, and marketing to drive the sustainable development of Bali cattle farming. With a focus on collaboration and quality improvement, this concept plays an important role in advancing the Bali cattle sector and mitigating the risks often faced by farmers. The Balinese Cattle Refining Cluster concept has a deeper meaning in developing Balinese cattle farming. It is also a holistic strategy covering aspects of risk management and productivity improvement.

One of the more in-depth aspects is risk management. Farmers in the cluster work together to identify risks that might affect the production and sustainability of Bali cattle farming. These risks can come from internal and external factors, such as livestock diseases, climate change, feed price fluctuations, or supply disruptions. By assessing and managing these risks, farmers can reduce their negative impact and better prepare themselves when they arise. The cluster encourages adopting best practices in Bali cattle rearing and breeding. These include livestock health monitoring, more efficient feed management, cattle breeding, and better grooming. With a focus on quality improvement, farmers can increase the productivity and quality of Balinese beef, which positively impacts the selling value and competitiveness in the market.

In addition, the Bali Cattle Refining Cluster also pays attention to education and training. Farmers get the opportunity to improve their knowledge of best practices, risk management, and efficient marketing. This increases the capacity of the farmers and enables them to manage their farms better. In order to achieve a more profound impact, the Bali Cattle Refining Cluster concept also continues to encourage improved market access. By collaborating in marketing and sales, farmers can reach a broader market, reduce distribution costs, and improve competitiveness. This has a significant economic impact, allowing farmers to get better product prices. The Bali Cattle Refining Cluster is a collaborative and holistic approach that includes risk management, quality improvement, education, and marketing. With this in-depth approach, the concept is instrumental in developing sustainable Bali cattle farming and enabling farmers to overcome their challenges and risks.

**Risk Management Concept in Cattle Farming**

Risk management in cattle farming is essential to managing the risks affecting livestock operations. Farmers must carefully identify and evaluate potential risks, ranging from livestock diseases to feed price fluctuations, extreme weather, and market risks. After identification, developing a risk management strategy, including preventive measures, crisis planning, business diversification, and even insurance, becomes an important step. Implementing these strategies allows farmers to reduce the impact of unavoidable risks. However, risk management is not a one-off task; it is an ongoing process that requires constant monitoring, evaluation, and flexibility in the face of unforeseen changes. Continued education and improved knowledge are also key elements in effectively managing risk. With a well-thought-out risk management approach, farmers can maintain the sustainability of their business, protect their investments, and minimize financial risks that may arise.

In addition to the aforementioned aspects, the diversification of livestock businesses is an important component of the risk management concept. Farmers can reduce dependence on a single source of income by having a variety of livestock or products, thereby mitigating risks associated with price fluctuations or specific market demands. Flexibility in running the business and adaptation to changing market or environmental conditions also play a major role in successful risk management. In addition, agricultural insurance and financial protection are important tools in farm risk management. These can help protect farmers from significant financial losses due to natural disasters, livestock diseases, or other unforeseen events. Building support networks with other farmers in the community or joining livestock organizations can improve access to risk management solutions, such as co-insurance or resources that can help deal with unexpected changes. Risk management in cattle farming is about maintaining sustainability, investment protection, and effective risk management. It is about identifying risks, developing appropriate strategies, and dealing with uncertainties. With a well-thought-out approach, farmers can increase their resilience to various threats and ensure the continuity of their cattle farming business.

**Bali Cattle Farming Partnership Model**

Partnerships in cattle farming provide several benefits. Firstly, it allows farmers to share resources and knowledge, which can help improve productivity and efficiency. In addition, partnerships often provide access to broader markets, assist in financing operations, and provide greater bargaining power in negotiating with other parties. It can also create strong social networks among farmers and other stakeholders in the cattle industry. However, partnerships also require commitment and good management from all parties involved. Clear agreements and transparency in risk management are key to maintaining the partnership's sustainability. These agreements must also address profit sharing, cattle ownership rights, and risk management responsibilities.

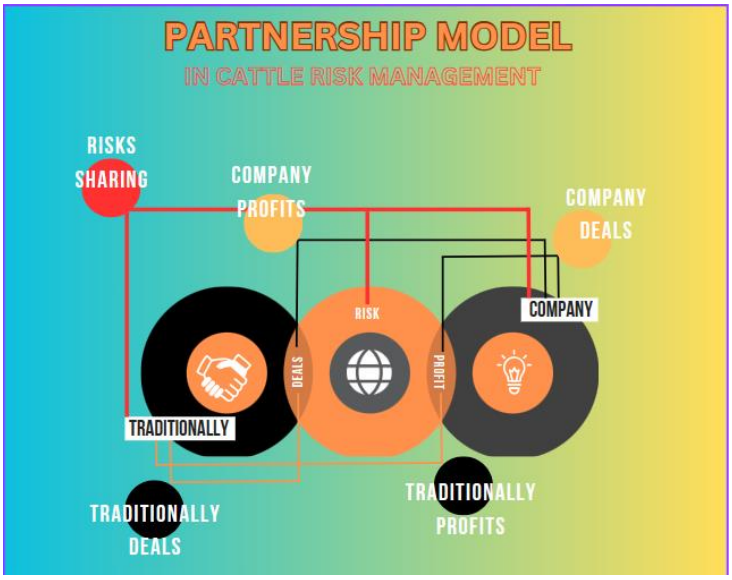


**Figure 1.** Partnership Model in Cattle Risk Management

A partnership in the cattle industry is a close collaboration between farmers, farm owners, or groups of farmers with a common goal of mutual benefit (Aseete et al., 2022; Hammami et al., 2022; Hubeis, 2020; Pradiptya Ayu Harsita & Amam, 2021). In these partnerships, different parties are involved in various aspects of livestock operations, from production to marketing. These partnerships can take many forms, such as between cattle farmers and feed producers, financial institutions, or beef producers. A livestock partnership is a collaboration between a farmer and another party, such as a company or government, in a livestock business.

**a. Company Partnerships**

Farmer-company partnerships are a form of cooperation in which farmers cooperate with companies in various livestock production and marketing aspects. In these partnerships, companies can provide equipment, feed, medicine, and other materials needed to raise livestock efficiently and healthily while providing technical assistance and training to farmers. In addition, companies assist farmers in marketing and distributing livestock products to a broader market, increasing sales and income potential. Some farmer partnerships with companies also include operational management, funding, and new market development, all aimed at improving farmer productivity and competitiveness. It is important to note that these partnerships require clear and mutually beneficial agreements and compliance with applicable livestock industry rules and regulations.

Farmer-company partnerships are a form of cooperation where farmers work with companies on various livestock production and marketing aspects. This partnership can benefit both parties, including increased productivity, resource access, and broader markets. Here are some forms of farmer-company partnerships:

1. Supply of Agricultural Equipment and Inputs

Companies provide farmers with equipment, feed, medicine, and other materials to raise livestock efficiently and healthily. This helps farmers improve the quality and quantity of their production.

2. Technical Assistance and Training

Companies often have a team of agricultural experts and technicians who can provide farmers with technical assistance, training, and advice. This helps farmers implement best agricultural practices and solve technical problems that may arise during production.

3. Product Marketing and Distribution

Companies have distribution networks and access to broader markets. They can assist farmers in marketing and distributing livestock products to potential consumers or markets, thus increasing potential sales and income.

4. Operational Management and Management

Companies assist farmers in managing the administrative and operational aspects of the livestock business, including livestock health monitoring, production records, and inventory management.

5. Funding and Loans

Companies or financial institutions provide financial assistance to farmers through loans or funding to purchase equipment, expand the business, or improve farm infrastructure.

6. New Market Development

Companies assist farmers in identifying and accessing new markets locally and internationally. This can open up new opportunities for farmers to increase their turnover and expand their market reach.

The farmer and company partnership also agrees to terms of profit sharing, so partnering farmers must have a farmer-livestock group, where the division is 50% for the farmer, 45% for the Company, and 5% for the farmer-livestock group. On the other hand, losses should also be one of the important aspects; for farmer-company partnerships, the business risk borne by the Company is capital in the form of live Bali cattle that die, farmers are not charged to replace, but farmers only bear the loss of labor and feed during maintenance.

Farmer-company partnerships should be based on clear agreements that are mutually beneficial to both parties. In addition, it is also important to ensure that the partnership complies with the prevailing regulations and rules in the livestock industry in the local area.

**b. Traditional Partnership**

Traditional partnerships are forms of cooperation that underlie relationships between individuals, groups, or communities based on values, norms, and practices that have persisted in society for many years. In traditional societies, these partnerships reflect the social and cultural policies governing community interaction and collaboration. Examples include partnerships in agriculture, animal husbandry, natural resource management, religious ceremonies, arts and culture. Traditional partnerships are often based on mutual aid, social justice, and environmental sustainability, which help communities maintain their cultural identity and address social challenges in a changing context. While valuable in maintaining cultural heritage, traditional partnerships must also be able to adapt to changing times to remain relevant.

Traditional partnerships play a pivotal role in maintaining cultural integrity and sustaining social order in communities. They often express centuries of time-tested local wisdom in managing natural resources and contributing to environmental sustainability. These consist of shared resources, partner responsibilities, and the extent of operations (Awad, 2023). On the other hand, economic, social, and environmental changes can challenge the balance of traditional partnerships. Therefore, it is important to recognize that these partnerships must also be able to adapt to changing times while still maintaining the values and practices that form the cultural basis of the community. Many of these partnerships can be a valuable source of local wisdom and make an important contribution to community and environmental sustainability.

Traditional partnerships refer to forms of cooperation or partnerships between individuals or groups based on traditional values, norms, and practices that have existed in the community for many years. Traditional partnerships often reflect the social and cultural policies that have been implemented within a particular community or social group (Harsita & Amam, 2021). In the traditional partnership system, the agreement that is built is the distribution of profits from sales is 50-50, where the profit is divided in half by adjusting the turn time, meaning that the farmer receives the first harvest and the second harvest is received by the cow owner (or vice versa depending on mutual agreement). However, loss sharing also occurs in the event of death or loss of livestock; both farmers and owners of capital each accept the situation that occurs without compensation.

Traditional partnerships are valuable legacies that reflect a society's history, norms, and values (Graham & Davis-Floyd, 2021; Munoz-Jofre et al., 2023). They often balance individual needs and collective interests in a way that allows for the survival and well-being of the community. Amid globalization and modernization, maintaining traditional partnerships can be challenging. However, it is also an important step towards protecting cultural wealth and ensuring these valuable practices are passed on to future generations. Efforts to understand, respect, and support traditional partnerships can help preserve cultural diversity and the unsustainability of communities around the worldwide integration of diverse perspectives, skills, and resources from many disciplines is where modern partnerships vary from previous ones (Holt et al., 2021).

## CONCLUSION

There are two partnership models in the Bali cattle business in the study location: the partnership model between farmers and the Company and the partnership between farmers and capital owners. Each business model has its advantages and disadvantages, but this partnership protects farmers in anticipating risks that cause losses to their business. Future research will be maximized if it increases the number of respondents and the size of the research area to detect the form of agricultural partnership patterns in rural areas.

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