



Risk Management of the Joint Partnership Pattern: Case Study of Shrimp Farming in Indonesia

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ABSTRACT

Risk management in farming business is an important point in dealing with various business problems, especially crop failure. This paper focuses on risk management strategy, institutional model and analysis of the partnership pattern of shrimp farming business. Using the case study methodology, the data collected through literature study, field observation, in-depth interview and focus group discussion with resource persons acting as representatives of the parties involved in Bumi Dipasena. The management of vaname shrimp farming business in Bumi Dipasena uses a joint business partnership pattern. This joint business partnership pattern is a form of business management innovation with its own institutional model. Several unique features of the Joint Business Partnership Pattern are currently being implemented, namely, the existence of a profit-sharing pattern, the concept of business risk reserve and the concept of 1000 rupiah and emergency debt. These three processes are business risk management strategies.

Keywords: Risk Management Strategy, Institutional Model, Partnership Pattern, Business Management Innovation

JEL Classifications: D81, M21, O30

1. INTRODUCTION

Shrimp farming in Bumi Dipasena is a longstanding business that has experienced ups and downs. Instances occur when shrimp ponds in Bumi Dipasena carry out a core-plasma partnership pattern with core companies. Farmers are workers required to follow company rules without the freedom to choose. This situation was later followed by the “Mandiri Revitalisation” programme. The programme begins with the commitment of farmers to continue shrimp cultivation by creating a new, fair, and transparent partnership system through an economic platform called the Bumi Dipasena Farmer Cooperative (KPBDD); this system then evolved into Village-owned Indonesian Enterprises called BUMDes (Badan Usaha Milik Desa).

Shrimp pond businesses in Bumi Dipasena is progressively improving in each village under BUMDes. Farmers have the right to determine the supplier and container when selling their harvests. However, implementing the new partnership scheme with

BUMDes resulted in common problems related to the business risk strategy of farmers (Anonimous, 2016). Economic and productive activities which are completely free from risks are an unattainable goal and it is necessary to develop effective strategies for risk management (Shinkevich et al., 2016). Whereas in practice, farmers frequently experience crop failure, which leads to financial loss. Thus, the following question is posed: How is the partnership pattern implemented in Bumi Dipasena at present?

1.1. Management Business Partnership Pattern

A partnership pattern exists in a business to regulate relations between stakeholders. Partnership development has benefits and advantages, such as existence of added value in working with other organisations. However, the benefits of an effective partnership are not apparent in the short term. Partnership is defined as a collaborative relationship between entities to work towards a variety of goals through a mutually agreed upon division of labor. Organisations often evolve in partnership patterns when they acquire further knowledge regarding effective management, build

capacity and gain valuable experience. In this case, the partnership can provide knowledge to business people and subsequently improve the quality of their work performance and enable them to achieve their goals (Strengthening Nonprofits, 2017).

Linton (1995) described partnership as an attitude of running a business characterised by long-term relationships, high-level collaboration and mutual trust where suppliers and customers trade with each other to achieve shared business goals. Boone and Kurtz (2007) stated that a partnership also includes partnerships, which are an affiliation of two or more companies with a common goal to help each other in achieving the latter. Providing opportunities will enhance the role of small businesses. The key to successfully achieve this goal is through a partnership programme. In this case, the Indonesian government, the president, can plan a partnership programme through the linkages of foster fathers and business partners regulating cooperative relations between large and medium-sized businesses with small businesses.

An important source for the development of the concept of partnership is relationship marketing, which replaces transactional marketing. This concept is based on the desire to establish long-term relationships of the organisation with key customers and gain their loyalty through relationship management. The relationship aims to build partnerships characterised by the fact that the management of customer relations (Customer relationship management) shifts to the management of relationships with partners (partner relationship management) (Salimova et al., 2014). The illustration Partnership in Business can be seen in Figure 1.

1.2. Business Risk Management

Risk is the possibility of adversity or loss and refers to “uncertainty that matters.” Risk management involves choosing alternatives to reduce the effects of risk. Risk and risk management help producers make informed decisions in risky situations and assist policymakers in assessing the effectiveness of different types of risk protection tools (Harwood et al., 1999).

Risk management theory is defined as a process related to identification; this concept involves analysis and response to uncertainty, including maximising the outcome of positive events and minimising the impact of the opposite event. Risk management aims to limit the possibility of the occurrence of risk impacts from negative project activities (Burke, 2000).

Enterprise risk management is becoming an important component of corporate governance as evidenced by the many firms that have either created the position of a Chief Risk Officer (CRO) or elevated the CRO to the membership of the top management team (Karanja and Rosso, 2017).

Risk assessment is part of effective management of the process aimed at the creation of reliable production. The result of the evaluation of various risks provides a basis for adjusting of individual elements in the risk management process. When specific risks management the process is detailed with respect to the relevant risk situation, internal and external factors directly or indirectly influencing its character as well as development

trends and peculiarities of existence of probable consequences (Shinkevich et al., 2016).

The practice of risk management needs to be decoupled from the theories of risk management; another is that risk management practices do not need to be explicit but can be embedded in the managerial tactics (after De Certeau, 1990) that characterise the organisation’s operational mode (Corvellec, 2009).

According to Harwood et al. (1999), some sources of risk exist in farming business, such as production, price, institutional, personal and financial risks. Production or yield risk occurs because agriculture is affected by many uncontrollable events often related to the weather, including excessive or insufficient rainfall, extreme temperatures, hail, insects and diseases. Technology plays a key role in production risk in farming. The rapid introduction of new crop varieties and production techniques often offers the potential for improved efficiency but may occasionally yield poor results, particularly in the short term. By contrast, the threat of obsolescence exists with certain practices (e.g., using machinery for which parts are no longer available), which creates different kinds of risk.

Price or market risk reflects risks associated with the changes in the price of outputs or inputs that may occur after the commitment to production has begun. Production in agriculture is generally a lengthy process. For example, livestock production typically requires ongoing investments in feed and equipment that may not produce returns for several months or years. Given that markets are generally complex and involve domestic and international considerations, producer returns may be dramatically affected by events in far-removed regions of the world.

Institutional risk results from the changes in policies and regulations affecting agriculture. This type of risk is generally manifested as unanticipated production constraints or price changes for inputs or outputs. For example, changes in government rules regarding the use of pesticides (for crops) or drugs (for livestock) may alter the cost of production; alternately, a foreign country’s decision to limit imports of a certain crop may reduce the price of that crop. Other institutional risks may arise from the changes in policies affecting the disposal of animal manure, restrictions in conservation practices or land use or changes in income tax or credit policies.

Farmers are also subject to the human or personal risks common to all business operators. Disruptive changes may result from these events, such as death, divorce, injury or poor health of a principal in the firm. In addition, the changing objectives of individuals involved in the farming enterprise may have significant effects on the long-term performance of the operation. Asset risk is also common to all businesses and involves theft, fire or other losses or damages to equipment, buildings and livestock. A type of risk that is gaining importance is contracting risk, which involves opportunistic behaviour and the reliability of contracting partners.

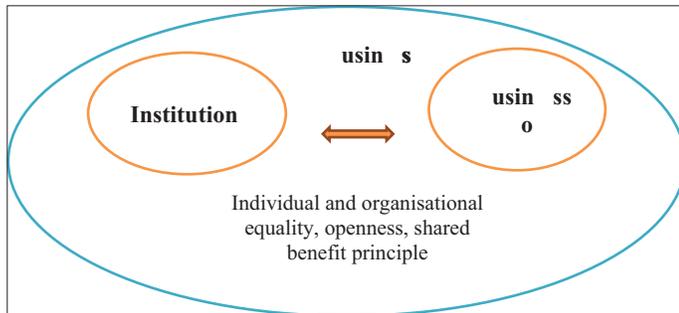
Financial risk differs from the business risks previously described given that the former is a result of the method of obtaining and

financing the firm's capital. A farmer may be subject to fluctuations in interest rates on borrowed capital or face cash flow difficulties if insufficient funds exist to repay creditors. The use of borrowed funds means that a share of the returns from the business must be allocated to meet debt payments. Even when a farm is 100%

owner-financed, the operator's capital remains exposed to the probability of losing equity or net worth.

Two types of risks are involved in the case of the Bumi Dipasena shrimp farm. The first one is the risk of crop failure, which can be categorised as production and financial risks. The second one is price play related to price and market risk.

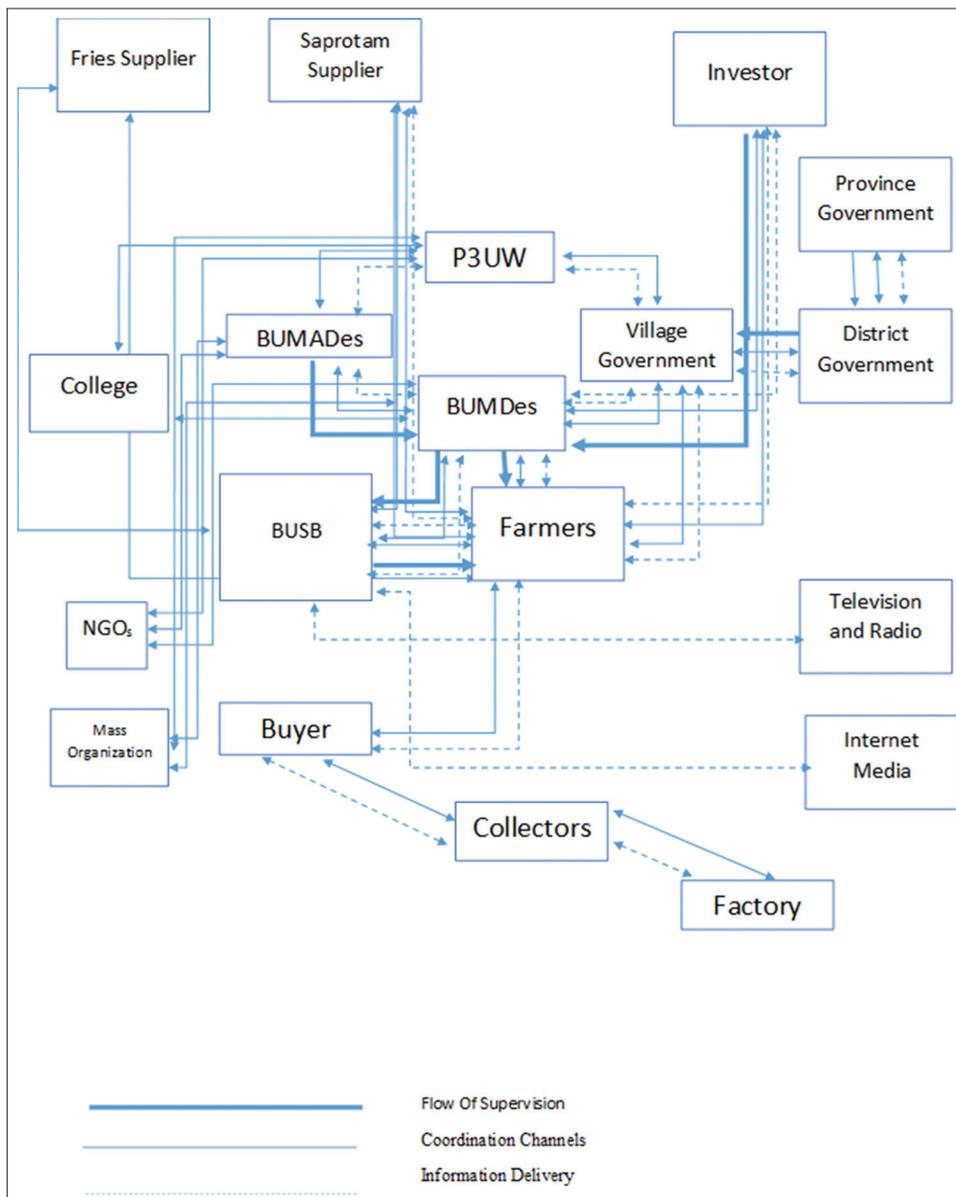
Figure 1: Definition of partnership in business



2. MATERIALS AND METHODS

This paper uses case study methodology. According to Yin in Corcoran et al. (2004), case studies allow a researcher to reveal the multiplicity of factors [which] have interacted to produce the unique character of the entity that is the subject of study. They represent a method of investigating a complex instance through description and contextual analysis. The result is both descriptive and theoretical in the sense that questions are raised on why

Figure 2: Institutional model of joint business partnership patterns



the instance occurred as it did and with regard to what may be important to explore in similar situations. A case study investigates a contemporary phenomenon within its real-life context when the boundaries between the phenomenon and context are not clearly evident and in which multiple sources of evidence are used.

Case study has many differences, depending on the purpose of the study, the size of the study, the people involved, the theories developed and the theories tested. Bassey in Corcoran et al. (2004) defined a range of purposes for educational case studies, which include theory-seeking and theory-testing case study, storytelling and picture-drawing and evaluative case studies. Case studies may involve description, explanation, evaluation and prediction. To conduct data analysis, data collection must be performed beforehand.

In the present paper, data were collected through literature study, field observation, in-depth interview and focus group discussion with resource persons acting as representatives of the parties involved in Bumi Dipasena.

3. RESULTS

The actors involved in the business process of vaname shrimp ponds in Bumi Dipasena are divided into internal and external actors. Internal actors are parties directly related to vaname shrimp cultivation. Shrimp cultivation starts from the process of vaname shrimp cultivation for approximately 2½ months, followed by administrative, operational and financial management up to selling of the farm harvests. Farmers and Business Entities Sub Blocks (BUSB) are two internal actors in the vaname shrimp cultivation business in Bumi Dipasena.

Many external actors directly or indirectly influence the business in vaname shrimp farm business. The external actors in the vaname shrimp farm business are P3UW (Regional Shrimp Farmers Association), investors, seed suppliers, saprotam suppliers, BUMDes, infra, government, media, NGOs, Organisational Community (Community Organisations), universities, buyers, collectors and factories. The relationship among these actors formed an institutional model and partnership pattern.

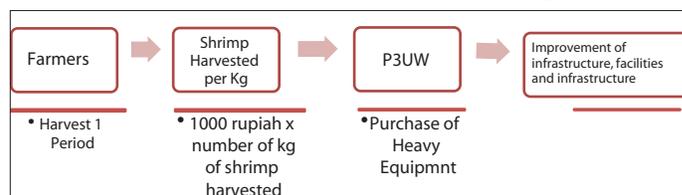
3.1. Institutional Model

In the past, the business and partnership pattern implemented in Bumi Dipasena was a plasma-core partnership pattern. Currently, business patterns and partnerships are leaning towards joint business partnerships. Based on the previously explained actors, a link is formed in the form of partnership models arranged in an institution as follows:

As shown in figure 2, the institutional model, the joint business partnership pattern

In the institutional model, the joint business partnership pattern contains a flow of information delivery or a coordination channels and a flow of supervision among the stakeholders involved. When viewed, the flow of coordination relates to nearly all actors involved, which ranges from suppliers, investors, government, P3UW,

Figure 3: Programme implementation of the 1000-rupiah funding



BUMADes, BUMDes, buyers, collectors, factories, to NGOs and mass organisations. However, when viewed from the main actors, namely, farmers, and compared with core-plasma partnerships, the farmers coordinate with several actors, such as suppliers, investors, village government, BUMDes, BUSB and buyers. In terms of information flow, the main actors are farmers who receive information and provide information to suppliers, investors, village government, BUMDes, BUSB and buyers. Finally, for the flow of supervision, farmers are directly supervised by BUSB and by the village government. The function is the village government can determining the extent of the business development in the village. For BUSB, implementing business process supervision is carried out as a whole because despite farmers' substantial freedom, BUSB, as an agency that assists the administrative management of shrimp farming business, must conduct supervision for the stable business of this shrimp pond in Bumi Dipasena.

Based on the explanation of the three channels, the differences in the plasma core partnership model pattern with this Joint Business Partnership Pattern not only exist in the freedom of the farmers to determine the shrimp cultivation supplier and collect the harvest, the joint business partnership pattern promotes togetherness and discipline, which can be seen from several boundaries that not only benefit business units (BUSB) but also become an automatic supervision for farmers in managing their shrimp farm business. Three unique innovations become a limitation to avoid risk in this joint business partnership pattern, namely, profit sharing patterns, business risk reserve concepts and the concept of 1000 rupiah and emergency debt as shown in Figure 3.

3.1.1. Joint business partnership pattern

This Bumi Dipasena shrimp pond is a shrimp farm that runs a joint business partnership pattern. This joint business partnership pattern can be formed on the basis of past history, which is detrimental to farmers. This pattern raises common sense and a sense of shared vision. The partnership pattern of the joint ventures in Bumi Dipasena is characterised by the existing freedom of business management with certain limitations jointly applied for the common interest, both the management of the farm and the BUMKAM and cooperatives. The examples of rule restrictions applied together are explained in numerous shrimp farming business conditions, from determining the suppliers and the price of harvest reference to selling the harvested shrimp ponds.

First, related to farmer transactions with suppliers. The shrimp farmers may make transactions, either buying saprotam supplies or selling pond products to parties other than the cooperatives. However, transactions outside the cooperative must be reported to the cooperative for price control and cooperative development.

Table 1: Differences between core-plasma partnership patterns and joint business partnership patterns

No	Difference	Core-plasma partnership pattern	Joint business partnership pattern
1	Position of farmers	As laborers who carry out the process of shrimp cultivation regulated by the core company	As an independent business actor
2	Position of institution	The core company is a company that manages and organises all shrimp farm business activities	The business entity of the business unit is the coordinator who assists the farmers in managing the shrimp farm business in each village
3	Supplier determination	Supplier is determined and through the core company	Farmers are free to choose suppliers who will supply various saprotam requirements of shrimp ponds with restrictions not detrimental to farmers
4	Determination of reference prices for harvesting results	Prices are regulated by the core company	Prices are seen on the basis of global prices organised by BUSB. The price of shrimp taken is the highest shrimp price currently in effect
5	The process of selling shrimp farms	Yields are distributed to core companies for sale	Farmers may determine their respective buyers with the highest price provisions that do not harm farmers
6	Treatment of harvest failure	Harvest failure is considered as debt from farmers to the core company	Harvest failure is a risk that must be borne together. Rupiah nominal crop failure can be covered by the use of the CRU
7	Shrimp harvesting product distribution	Farmers obtain results according to those set by the core company	Rules and percentage of distribution exist for the profit sharing of shrimp farms

BESB: Business Entities Sub Blocks

The cooperative does not perform shrimp marketing activities. They are only allowed to coordinate with the existing shrimp collectors for the process of selling the ponds. Thus, the farmers are basically free to obtain supplies from any party and sell the results with any party. However, they still use the CRU model in financial management.

Another example in terms of selling the results of vaname shrimp ponds is done with reference, the highest price, the fastest selling/paying and the best service. The pricing of vanamei shrimp is nationally and globally determined on the basis of market prices. P3UW only acts as the newest shrimp price informer. Price references are usually based on data on shrimpnews.com, seafood.com and from various associations. Thus, the value of the sale of harvested shrimp ponds carried out by business units under BUMKAM is calculated by looking at the percentage decrease/increase in the previous global price.

In terms of sellin

g shrimp products, farmers are given the freedom to sell shrimp ponds to anyone with the condition that the price is higher than the collectors and thus benefit the farmers. The entire process described earlier regarding the joint business partnership pattern is clearly different from the previous Core-Plasma Partnership Pattern implemented in Bumi Dipasena. The difference can be seen in the following Table 1.

Thus, the joint business partnership pattern can be considered a partnership pattern that prioritises the willingness to be free from debt or inclination for progress, togetherness, trust and discipline with the freedom of business people to determine the parties related to their business but still have certain restrictions within the maintenance of existing business stability.

Table 2: Business profit sharing pattern

No	Component	Code	Description
1	Sales	A	Cultivator's results
2	Cultivation fees	B	Collection of funds from investors
3	Hasil Kotor	C	A dikurangi B
4	Infaq	D	2,5% dari C
5	Hasil Sudah Infaq	E	C dikurangi D
6	Business risk reserve	F	10% dari E
7	Results of the parties	G	E dikurangi F
8	Pembudidaya	H	80% dari G
9	Cultivation	I	15% dari G
10	Bumkam management	J	5% dari G

3.1.2. Sharing

The profit sharing system in the joint business partnership pattern can be seen in the following Table 2.

An existing percentage is directly deducted for infaq, business risk reserves (CRU), cultivators, financiers and management of BUMDes. Infaq is taken 2.5% of the gross yield of shrimp ponds. The results that have been reduced by infaq will be taken as much as 10% for the CRU. The results that have been reduced by CRU will be taken 80% for farmers, 15% for investors and 5% for the management of BUMDes.

The following is a sample calculation of the results (Table 3).

The 2.5% result taken for Infaq will be divided by 70% for the development of the village; 20% for houses of worship, both mosques and other places of worship and 10% for donations to sick people. A donation of 10% for the sick people can also be offered by the Citizens Association Chair. Then, a percentage of 10% of the income remains after deducting the infaq for the CRU.

3.1.3. Concept of business risk reserves (CRU)

Business risk reserves (CRU) can also be said as a collateral/insurance that serves to help farmers who fail and secure investors'

Table 3: Example of the calculation of profit sharing

E.g., Per person	Description	Percentage	Value
A	Sales		Rp. 100,000,000.00
B	Cultivation fees		Rp. 50,000,000.00
C	Gross Income		Rp. 50,000,000.00
D	Infaq	2.5	Rp. 1,250,000.00
E	Net Income after Infaq		Rp. 48,750,000.00
F	Business Risk Reserves	10	Rp. 4,875,000.00
G	Net Income of the parties		Rp. 43,875,000.00
H	Farmer	80	Rp. 35,100,000.00
I	Investor	15	Rp. 6,581,250.00
J	BUMDes	5	Rp. 2,193,750.00

Table 4: Business risk reserve balance (CRU) Bumi Dipasena Jaya village

No	Region	Business risk reserve balance (CRU)			
		Beginning balance	Retained earnings	Balance applicable	Ending balance
1	6 ALPA	-Rp. 200.543.848	Rp. 4.801.214	Rp. 14.246.300	-Rp. 209.988.935
2	6 BRAVO	-Rp. 126.530.387	Rp. 6.289.028	Rp. 7.686.900	-Rp. 127.928.259
3	6 CHERLY	-Rp. 2.892.553	Rp. 7.886.124	Rp. 3.000.200	Rp. 1.993.371
4	6 DELTA	Rp. 84.183.808	Rp. 5.787.639	Rp. 9.844.372	Rp. 80.127.074
5	6 ECHO	Rp. 58.478.823	Rp. 7.943.781	Rp. 18.266.150	Rp. 48.156.454
6	6 FOXROT	Rp. 1.622.201	Rp. -	Rp. 16.780.160	-Rp. 15.157.959
7	7 ALPA	Rp. 32.902.700	Rp. 2.905.934	Rp. 8.529.563	Rp. 27.279.071
8	7 BRAVO	Rp. 62.596.066	Rp. 5.235.972	Rp. 8.116.105	Rp. 59.715.933
9	7 CHERLY	Rp. 41.863.235	Rp. 2.325.446	Rp. -	Rp. 44.188.681
10	7 DELTA	Rp. 123.210.202	Rp. 9.183.934	Rp. 12.366.674	Rp. 120.027.462
11	7 FOXROT	Rp. 116.215.805	Rp. 8.160.350	Rp. 87.026.000	Rp. 37.350.156
12					Rp. -

Total Saldo in benefits CRU Rp. 65.763.049

investments by making mutual agreements. If one farmer fails to harvest, then, the farmer will cover the losses from the CRU fund. CRU control can be seen from the results of financial reporting shared in monthly reporting forums. Farmers who have taken CRU funds will exert additional efforts to return the CRU funds (10% per month) because they feel embarrassed. If a continuous crop failure by the farmer happens, then, P3UW will be assisted. Thus, cooperation, mutual cooperation, discipline and commitment are important in the ongoing business of vaname shrimp ponds.

The following is an example of a CRU balance report in 1 month (Table 4).

This Table 4 presents the initial balance, the additional balance collected, the balance used and the final balance of the CRU per business unit.

The benefits obtained in implementing the CRU model finance are as follows:

1. Risk reduction (that farmers do not become indebted if crop failure happens)
2. Infrastructure improvements from CRU funds
3. Fostering a sense of cohesiveness because the problems are shared
4. A monitoring system for each other arises because of the
5. CRU system
6. Farmers can become investors
7. Opportunities exist for business development again.

3.1.4. Concept of 1000 rupiah and emergency debt

Apart from the CRU concept, the business unit cooperates with farmers using the 1000 rupiah funds, that is, every 1 kg of shrimp harvest, the farmer give 1000 rupiahs to the P3UW cash for the purchase of heavy equipment (excavators). Excavators are employed to improve facilities and infrastructure in the village. The so-called emergency debt also exists. Farmers who experience financial difficulties will be assisted with emergency debt, and it will be returned after harvest periode and without interest.

The concepts of profit sharing, CRU, 1000 rupiah funds and emergency debt are the concepts of financial arrangements for shrimp farming that free farmers from debt bondage, which enable the slow but certain prosperity of society.

Risk management has been implemented in the Joint Business Partnership Pattern run by the shrimp farming business in Bumi Dipasena, especially those related to the risk of harvesting or harvest failure. Harvest risk is minimised through the implementation of CRU. Price risk is also regulated to reduce the possibility of price games using a global price reference. Both risk managements are carried out and organised together.

4. CONCLUSION

The partnership pattern is applied as a joint business partnership pattern in managing the business of vaname shrimp farming. This partnership pattern is formed because of past history, which is detrimental to farmers. This pattern creates common sense and a sense of vision. Three unique features exist and become a

limitation in the joint business partnership pattern, namely, the profit sharing pattern, the concept of business risk reserve and the concept of 1000 rupiah and emergency debt. These three are the company's strategies employed in managing business risks. The joint business partnership pattern is a partnership pattern that prioritises the willingness to be free from debt or inclination for progress, togetherness, trust and discipline, with the freedom of business people to determine parties related to their business but still have certain restrictions in maintaining the stability of existing business.

In carrying out its business, Bumi Dipasena shrimp ponds also have an institutional model that demonstrates the relationships among actors who play a role in the shrimp farm business. Information, coordination and supervision flows occur. As regards the optimisation of production and the efficiency of the pond business, conducting further research is necessary to determine the economic scale and combination of the input of shrimp farming process optimal for obtaining other results.

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