Journal Homepage: - www.journalijar.com

INTERNATIONAL JOURNAL OF ADVANCED RESEARCH (IJAR)

Article DOI: 10.21474/IJAR01/13675
DOI URL: http://dx.doi.org/10.21474/IJAR01/13675

RESEARCH ARTICLE

PROFITABILITY ANALYSIS OF SHEEP LIVESTOCK BUSINESS WITH INTEREST-FREE PARTNERSHIP MODEL IN BEKASI DISTRICT

Sodikun, Sukardi, Andes Ismayana and Elisa Anggraeni
Department of Agroindustrial Engineering, IPB University, Dramaga, PO Box 220, Bogor, West Jaya, Indonesia.

Manuscript Info

Manuscript History
Received: 31 August 2021
Final Accepted: 30 September 2021
Published: October 2021

Key words:-
Profitability Analysis, Interest-Free Partnership Model, Sheep Farming Business

Abstract

The purposes of this studiesare to analyze the implementation of partnership model in thesheep livestock with measure the level of profit and the value of the R/C ratio obtained in the interest-free partnership model of sheep livestock. Currently, sheep livestock are still doing their business in the traditional way, with limited funding. Many breeders use burdensome financing for themselves. Analysis of several models will get the most profitable model. Descriptive analysis aims to describe the implementation of the established partnership. Based on the results of the analysis, the implementation of the partnership model that was carried out was considered good, because there were requirements, an agreement between the two partners, and a clear mechanism for implementing the partnership model in the sheep livestock. However, there is no written agreement regarding the partnership because it only applies the principle of mutual trust. Sheep rearing techniques start from finding feed, providing feed, cleaning the cage, bathing the sheep, to shearing the sheep. While the difference between the three models applied is in the effect of the partnership on the use of drugs and marketing. Based on the results of the analysis of the benefits obtained in the three applied models, the SDK1 model shows a high total profit and a high R/C ratio. Overall, the business of fattening sheep without usury that is run in both SDK1, SDK2, and SDK3 has its own advantages and disadvantages.

Introduction:-

The development of sheep livestock has been carried out, especially by smallholder livestockers in rural areas. Sheep are widely kept because they have various advantages, including being easy to adapt to the environment and having a stronger immune system than other types of livestock (Sudarmono and Sugeng, 2011). In addition, it also does not require a large area of land and it is easy to get forage food from the surrounding environment. However, sheep production in Indonesia has decreased (Ditjenpkh, 2020). In 2018, sheep production reached 56.26 thousand tons and decreased to 45.78 thousand tons in 2020 with a percentage decrease of 18.63% (Ditjenpkh, 2020).On the other hand, the demand for sheep in Indonesia (regionally) and neighboring countries such as Malaysia, Singapore, and Brunei tends to be promising (HPDKI, 2021). According to Aspaqin (2021), the growth in demand for sheep for aqiqah needs is around 10-12% per year. In 2021, the demand for sheep for aqiqah will be around 6.3 million heads with a value of not less than 6.3 trillion. On the other hand, according to Ditjenpkh (2020), the realization of sheep exports in 2018 was 2,328 heads or 81.5 tons, in 2019 there were 600 heads or 21 tons, and from 2020 to July there

Corresponding Author:- Sodikun
Address:- Department of Agroindustrial Engineering, IPB University, Dramaga, PO Box 220, Bogor, West Jaya, Indonesia.

were 1,518 heads or 53.14 tons. Based on these data, the fulfillment of export demand from the total demand in the region reached 75 heads per year or decreased by 3.8%(HPDKI, 2021).

High or low sheep production in Indonesia can be caused by sheep livestock activities carried out by sheep livestockers.There are various problems in the sheep livestock business. First, limited capital for sheep livestockersso that the scale of livestock business is relatively small (Handewi et al., 1996; Yunus et al., 2014). Second, in general, sheep livestockers still use simple technology and poor livestock management (Yunus et al., 2014). Third, the use of lambs that lack quality or do not meet the requirements as meat sheep (Maulana, 2013).This is due to the absence of selection of sheep breeds (Winarso, 2010; Yunus et al., 2014). Fourth, uncertain marketing due to the fact that livestockers generally do not have the ability to directly relate to the livestock market and consumption market and they are highly dependent on traders or middlemen(Winarso, 2010; Yunus et al., 2014). These various problems cause the level of profit of the sheep livestock business is still low.Therefore, a sheep farming business with a partnership model can be an alternative in minimizing the problems faced by sheep livestockers in the sheep livestock business.

The current partnership on farms is usually with a traditional profit-sharing pattern, namely if the sheep that are kept give birth to children, then the number of children born is divided between the owner of the sheep and the one who keeps it. This is what underlies how to carry out partnerships that can be carried out in a balanced manner and even cooperation without being burdened with interest, which comes from bank interest. The existence of funds in the form of loans with interest causes an increase in selling prices or reduces profitability (Kurniawan et al, 2021). Each partnership model has a well-defined understanding among partners of employment and output relationships. In each system there must be clarity about the various investment funds and components of development and business operations. An agreement involving equality of partners will result in a good partnership. Furthermore, the system must consider from the whole innovative process of management to marketing(Kurniawan et al, 2020).

This is in accordance with the statement that the partnership includes the provision of production inputs, access to credit, introduction of appropriate technology, transfer of expertise, guaranteed price structure and market access (Eaton and Shepherd, 2001). The rights and obligations of both parties in carrying out the agreement in the partnership run smoothly and maintain mutual trust. Partnerships in the financing aspect, so far have used a banking system that involves an interest element. This provides additional responsibility for the parties who need financing (borrowers) in running their business, because in addition to being responsible for returning the capital funds to the principal amount of the loan, the borrowing parties are also responsible for returning the funds in the amount of loan interest. Therefore, the application of an interest-free system in the financing aspect will reduce the responsibilities of the borrowers. According to Kurniawan et al. (2020), the application of the interest system in the financing aspect of the Tanning Industry has a negative impact on the industry, namely the sales price and or profit generated decreases, the total financing using the interest system is greater than the total financing using the no-interest system. In addition, the application of the interest system on the financing aspect of the Tannery Industry in Sukanggang Garut caused the percentage of Gross Profit Margin, Net Profit Margin, and Return on Investment to decrease respectively and the Return on Equity to increase in line with the increase in the capital structure due to an increase in the number of loans under the interest system.

According to Eaton and Shepherd (2001), the existence of a partnership (contract livestock) can provide various benefits for the parties involved, especially for breeders, namely obtaining consulting services on production methods, obtaining funds for capital, obtaining new technology so that livestockers gain new knowledge, and can minimize price risk and as a support for the opening of new markets. In addition, livestockers who participate in partnerships will generally have a higher level of profit than independent livestockers who do not participate in partnerships (Bolwig et al., 2009; Miyata et al., 2009; Saigenji, 2010). However, it can also give the opposite result, namely that non-partner livestockers have a higher level of profit than partner breeders (Sari, 2012; Yunus et al., 2014). These results indicate that consistent or inconclusive empirical results have not been found regarding the effect of partnerships.

There are three models applied in the interest-free partnership in this research, namely the SDK1, SDK2, and SDK3 models. The SDK1 model is a partnership model designed with illustrations, partner 1 provides sheep seeds while partner 2 provides cages, feed and care workers. The SDK2 model is a partnership model with a salary and profit-sharing system designed with illustrations, partner 1 provides cages, land for the location of the cage, goat seeds and feed while partner 2 is the livestock care worker. The SDK3 model is a partnership model designed with

illustrations, partner 1 provides land as a location, cages while partner 2 provides livestock care and feed. The three models in financing do not use financing from banks. So that there is no element of borrowing and borrowing in the form of money. Based on this description, the objectives of this study areto analyze the implementation of partnerships between partner breeders and measuring the level of profit and the value of the R/C ratio obtained in the sheep livestock business between partner breeders.

Research Method:-

Research Location and Time

The research was conducted in Taman Rahayu Village, Setu District, Bekasi Regency for both partners 1 and mirta 2 (farms). The determination of the research location was carried out because Bekasi is the capital city buffer where the demand for meat is quite high and this research is directly practiced by itself and the consideration that Bekasi Regency is one of the locations in West Java. As for the location of the company, namely CV. Farm 74 Syariah is located in Taman Rahayu Village, Setu District, Bekasi Regency. The research time starts from preparation, which is carried out since January 2020 and data collection begins in February to March 2021.

Data Types and Sources

The data used are sourced from primary data and secondary data, both qualitative and quantitative. Primary data was obtained through direct observation in the field and direct interviews with the perpetrators. Meanwhile, secondary data was obtained through a search of various literature studies and literature relevant to the research topic.

Method of Collecting Data:-

Data collection methods used are survey methods, field observations, structured interviews to partner livestockers and to CV. Farm 74 Syariah, and discussion. The data collection method for partner breeders used interviews and discussions with partners, both models of SDK1, SDK2 and SDK3, namely all partner livestockers. The number of partner breeders who became respondents in this study amounted to 1 partner breeder each.

Methods and Data Analysis

Descriptive Analysis

Descriptive analysis aims to describe the implementation of the partnership that exists between CV. Farm 74 syariah and partner breeders of sheep in Taman Rahayu Village, Setu District, Bogor Regency. In addition, to describe the performance of the sheep farming business from the three existing models.

Profit Analysis

According to Soekartawi (2002), the analysis of farming profits aims to determine the amount of profit obtained from farming carried out by farmers. Livestock profits can be calculated using Equations 1, 2, 3, and 4 (Soekartawi, 2002).

$$TR = P_y \times Y \quad (1)$$

$$TC = T_{BT} + T_{BD} \quad (2)$$

$$\pi \text{ cash} = TR_{total} - TC_{cash} \quad (3)$$

$$\pi \text{ total} = TR_{total} - (TC_{cash} + BD) \quad (4)$$

Where: TR isthe total of dairy livestocker revenue (IDR), TC isthe cost total of dairy livestocker (IDR), π is revenue (IDR), BD is the costs counted (IDR), P_y is the output price (IDR), Y isthe total of the output (kg), T_{BT}isthe total of cash costs (IDR), T_{BD}isthe total of costs calculated (IDR).

R/C Ratio Analysis

The R/C ratio analysis is divided into two, namely the cash R/C ratio and the total R/C ratio. The R/C ratio analysis was calculated using Equations 5 and 6 (Soekartawi, 2002).

$$\text{The cash R/C ratio} = TR / TC_{cash} \quad (5)$$

$$\text{The total R/C ratio} = TR/(TC_{cash} + BD) \quad (6)$$

R/C ratio analysis is used to analyze farming over a certain period of time. If the calculation results show R/C > 1, then the revenue obtained is greater than each unit cost incurred, it can be said that the business is running well. If the calculation results show R/C<1, then the revenue obtained is smaller than each business unit issued, this means that the business being run is not profitable (Hernanto, 1995).

Results:-

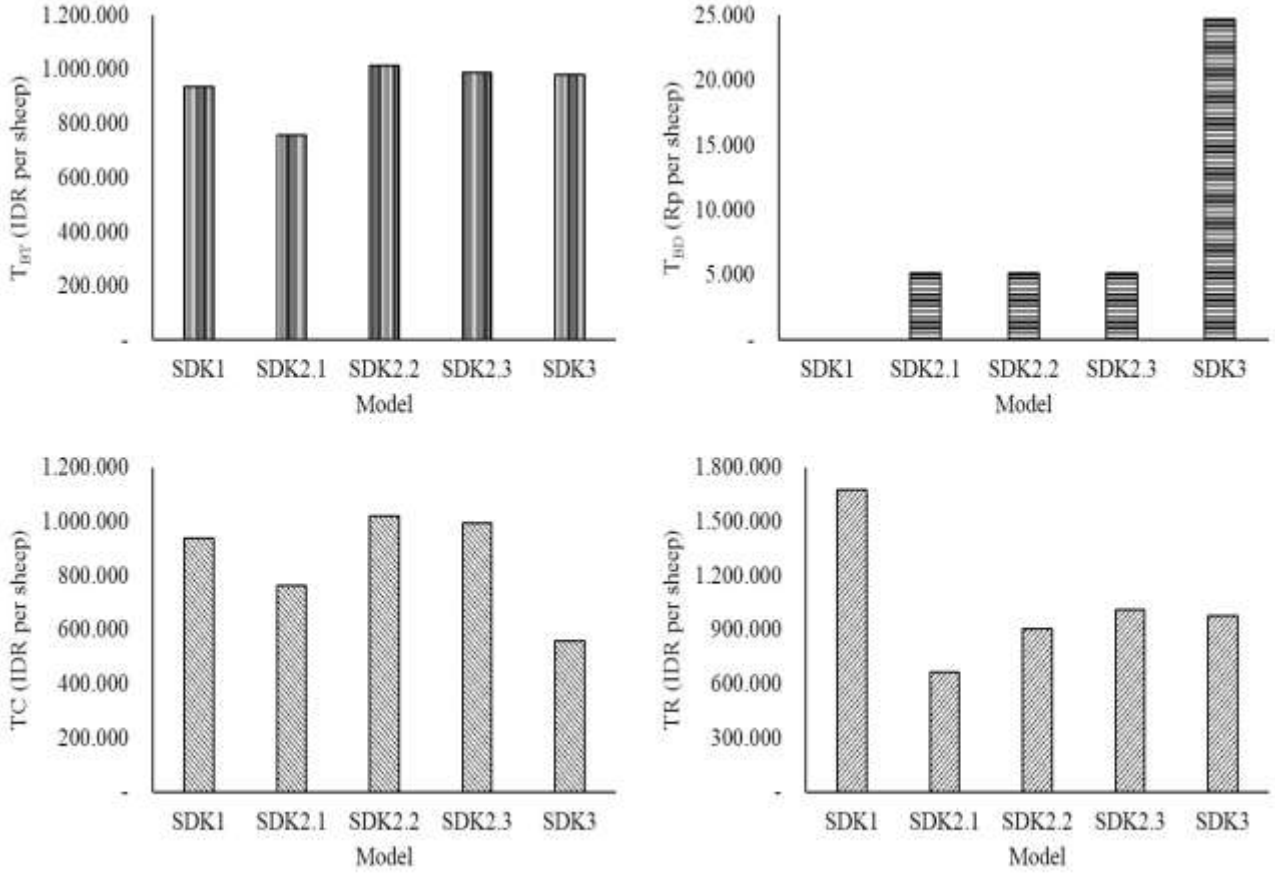
Descriptive Analysis

The partnership implemented by CV Farm 74 Syariah with farmers in Serang Taman Rahayu village began in February 2020. The purpose of this partnership is as a community economic development program initiated by CV Farm 74 Syariah in helping capital for underprivileged farmers in the economic field and partners TNI who will retire.In addition, there are other parties involved in this partnership, namely the residents of the cage environment, who are used as partners in cultivating agricultural areas in planting vegetables. CV Farm 74 Syariah has several roles, including providing assistance and guidance in technical feed, capital, providing feeder sheep, as well as cages, supervision and control on a regular basis. The requirements for farmers to become partners include having land for cages or having sheep or goats, being able to meet sheep feed, and having sheep rearing workers.

Profit Analysis

Analysis of Total Cash Costs, Total Non-Cash Costs, Total Costs, and Total Revenues

Analysis of cash costs, non-cash costs, total costs, and total revenues is the initial stage in profit analysis. Figure 1 shows the results of the analysis of cash costs, non-cash costs, total costs, and total income per sheep in each model.

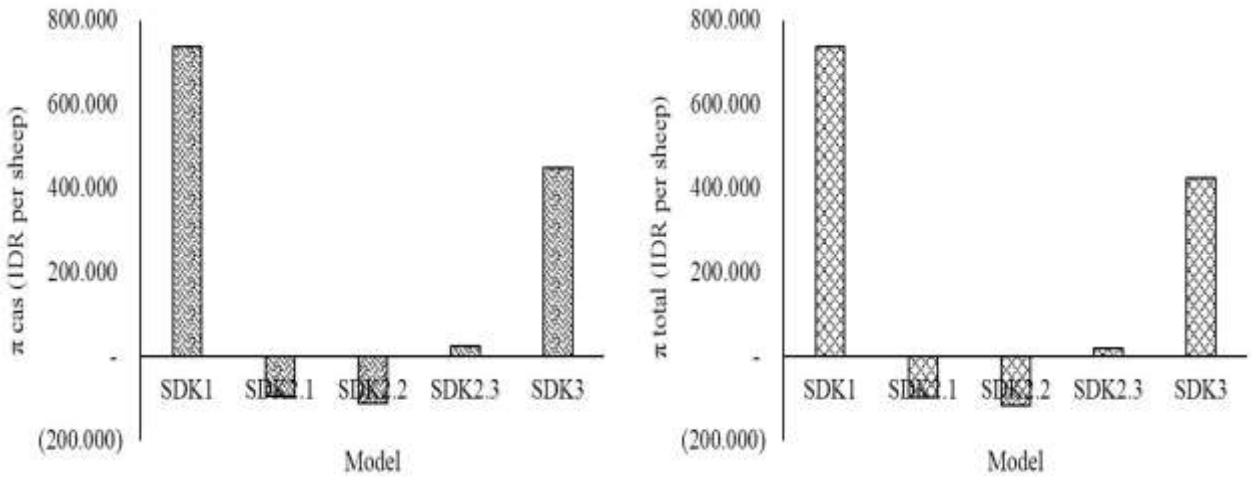


Note: T_{BT} = total cash costs, T_{BD} = total non-cash costs, TC = total costs, TR = total revenue

Figure 1:- The results of the analysis of total cash costs, total non-cash costs, total costs, and total revenues

Cash Profit and Total Profit

Cash profit and total profit are analyzed based on the difference between total revenue and total cost. Figure 2 shows the results of the analysis of cash profitsand total profits per sheep in each model.

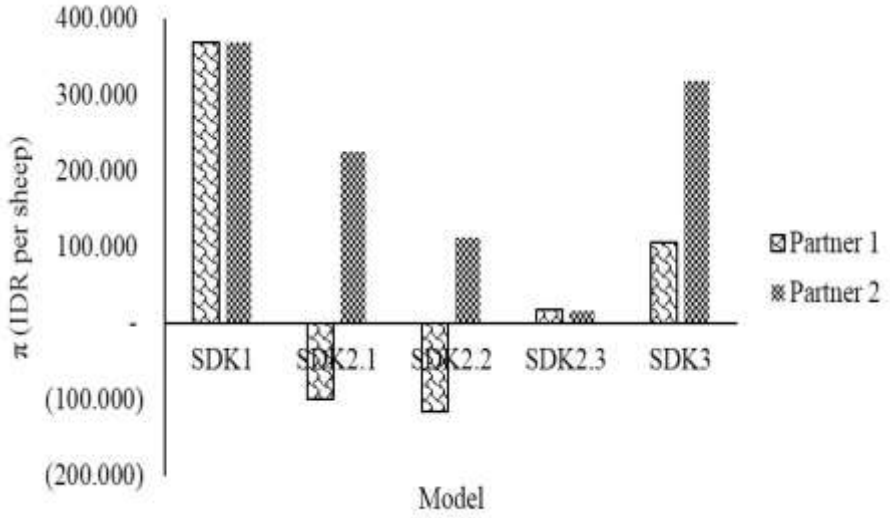


Note: π cash = cash profit, π total = total profit

Figure 2:- Result of analysis of cash profit and total profit.

Partner Profits

Partner profits are analyzed based on the total profit sharing in each model. Figure 3 shows the results of the analysis of partner profits per sheep in each model.



Note: π = profit

Figure 3:- Results of partner profits analysis.

R/C Ratio Analysis

The R/C ratio was analyzed based on the ratio of total revenue to total cost and the ratio of total revenue to cash cost. Table 1 shows the results of the cash ratio analysis and the total ratio in each model.

Table 1:- Cash ratio and total ratio in each model.

Model	R/C	
	Cash Ratio	Total Ratio
SDK1	1.7867	1.7867
SDK2.1	0.8762	0.8702
SDK2.2	0.8903	0.8858
SDK2.3	1.0240	1.0187
SDK3	1.8415	1.7599

Discussion:-

Descriptive Analysis

One of the facilities that must be owned in a sheep farming business is a cage, the cages that are prepared in this partnership are all in the type of stage cage, namely the shape of the cage is high with the separation between the sheep and their droppings so that the sheep are always clean. While the type of feed used is for partners outside the cage using forage feed while for partners within the CV Farm 74 environment using concentrate feed and jam. The maintenance system is carried out with an intensive system, that is, all are kept in cages, not being opened or released. The treatment carried out by partners when the sheep is sick is usually given traditional medicine such as turmeric or lempuyang which is grated and the water is given to the sheep, while CV Farm 74 usually uses factory-packaged worm medicine. Marketing of farm produce is left to partners or discussed to get the best price done by selling live sheep.

The length of the husbandry business carried out by partner breeders is not the same, some of which are three months or based on need. This maintenance time is relatively short, especially when approaching the qurban period. In addition, to help partner breeders in terms of finances with fast harvest times. However, the length of maintenance carried out by partner breeders varies from two months to twelve months.

Profit Analysis

The difference between sales and costs incurred will generate business profits. The results obtained from the three analyzed models, the SDK1, SDK2, and SDK3 models will be compared. The SDK2 model is divided into three cycle scenarios, namely SDK2.1, SDK2.2, and SDK2.3. This is done because the model is in an existing condition and has not yet made a profit, so it is considered necessary to determine a scenario for improving the SDK2 model so as to generate profits. In the SDK1 and SDK3 models, scenarios were not made because the models were already in an existing state of generating profits. Profits in each model were analyzed on the basis of calculation per head of sheep.

Analysis of Total Cash Costs, Total Non-Cash Costs, Total Costs, and Total Revenues

The results of the cash cost analysis show that the cash cost per lamb in the SDK2.1 model is lower than the other models. High or low cash costs are influenced by the total use of consumable materials. When compared between the three scenarios of the SDK2 model, the high cash costs in the SDK2.2 and SDK2.3 models are due to the addition of feed ingredients in the model, which is 2.5 kg per lamb per day or equivalent to IDR 3,775 per lamb per day.

The results of the non-cash cost analysis showed that the non-cash cost per lamb in the SDK3 model was higher than the other models. High or low non-cash costs are influenced by the total use of materials that are not used up. In the SDK1 model, there are no non-cash costs because in this model, the financier only pays cash in the form of the cost of buying sheep seeds, which is IDR 937,500 per lamb. In the SDK2 model, it shows the same non-cash costs originating from the depreciation cost of the cage, which is IDR 68,889 per month.

The results of the total cost analysis show that the total cost per lamb in the SDK3 model is lower than the other models. High or low total costs are influenced by total cash costs and non-cash costs. The higher the cash costs and non-cash costs, the higher the total costs, and vice versa. The low total cost in the SDK3 model is due to the fact that in this model the financier does not incur cash costs, in this case the financier only incurs non-cash costs in the form of shed depreciation costs, which is IDR 43,889 per month.

The results of the total income analysis show that the total income per lamb in the SDK1 model is higher than the other models. The high or low total income is influenced by the selling price of sheep per head. The higher the selling price per sheep, the higher the total income, and vice versa. The high total income in the SDK1 model is due to the higher selling price per sheep, which is IDR 1,675,000 per sheep. The selling price per sheep in the SDK2.1, SDK2.2, SDK2.3, and SDK3 models were IDR 760,000, IDR 903,000, IDR 1,012,000, and IDR 1,045,000 per sheep, respectively.

Cash Profit and Total Profit

The results of the analysis of cash gains and total profits show that the models of SDK1, SDK2.3, and SDK3 show a positive value or profit where the SDK1 model shows a higher cash profit and total profit compared to the SDK2.3 and SDK3 models. While the SDK2.1 and SDK2.2 models show cash gains and total profits with a negative value or

loss. When compared between the three scenarios of the SDK1 model, SDK3 shows cash gain and total profit with a positive value or profit. This is because the total income per lamb in the SDK2.3 model is higher than the SDK2.1 and SDK2.2 models. In addition, the cash cost per lamb in the SDK2.3 model is lower than in the SDK2.2 model due to reduced labor costs. Hi, this causes the cash gain and total profit on the SDK2.2 model to still be negative.

The negative value of the cash profit and total profit of the SDK2.1 model was due to a reduction in the number of sheep by five as a result of death. However, this information is not absolute because the financier did not witness or directly see the bodies of the five sheep's deaths, so there is a possibility of fraud committed by partner breeders. This can be one of the drawbacks of the partnership model.

Partner Profits

The results of the partner profit analysis show that the highest profit per sheep breed for partner 1 or the financier and partner 2 occurs in the SDK1 model with the same profit value, which is IDR 368,750 per sheep. Almost the same thing happened to the SDK2.3 model, but the profit value was very low, namely Rp. 18,583 per lamb for partner 1 and Rp. 16,500 per lamb for partner 2.

In the SDK3 model, the profit per head of sheep for partner 1 is lower than for partner 2. The profit for partner 2 in the SDK3 model is only calculated based on the difference between the selling price of sheep and the purchase price of sheep, while the cost of feed and others are not taken into account because they are not identified. .

In the SDK2.1 and SDK2.2 models, the profit per lamb for partner 1 shows a negative value or loss compared to partner 2 which shows a positive value or profit. This is because the profit or loss of the SDK2 model is determined and borne entirely by partner 1 or the financier because partner 2 only runs it and still gets wages even though it is in a loss condition.

R/C Ratio Analysis

The results of the analysis show that the cash ratio and the total ratio in the SDK1, SDK2.3, and SDK3 models are greater than 1, while the SDK2.1 and SDK2.2 models are smaller than 1. This shows that in the SDK1, SDK2.3, and SDK3 experienced an advantage and in the SDK2.1 and SDK2.2 models experienced a loss. The greater than 1 the value of the R/C ratio indicates the higher the gain, and vice versa, the smaller than 1 the value of the R/C ratio indicates the higher the loss. The SDK3 model has a higher cash ratio value than the other models, namely 1.8415, which means that for every one rupiah spent on the SDK3 model, an income of 1.846 rupiahs will be obtained. Overall, the sheep fattening business carried out in both SDK1, SDK2, and SDK3 has its own advantages and disadvantages.

Conclusion:-

The implementation of the partnership that has been carried out is considered good, because there are requirements, an agreement between the two parties, as well as a clear mechanism for implementing a partnership. However, there is no written agreement regarding the partnership because it only applies the principle of mutual trust. The cultivation techniques or sheep rearing activities start from finding feed, providing feed, cleaning the cage, bathing the sheep and sheep, to shearing the sheep. While the difference between the three models applied is in the effect of the partnership on the use of drugs and marketing. Based on the results of the analysis of the profits obtained in the three models of the no-usury partnership applied, the SDK1 model provides a high total profit and a high total ratio. Overall, the business of fattening sheep without usury that is run in both SDK1, SDK2, and SDK3 has its own advantages and disadvantages.

Reference:-

1. [Aspadin] Asosiasi Pengusaha Aqiqah Indonesia. 2021. Profile Asosiasi Pengusaha Aqiqah Indonesia Periode 2019 - 2021. Powered by BanghaikalAcademy. Availabe online:http://aspaqin.org/.
2. [Ditjenpkh] Ditjen Peternakan dan Kesehatan Hewan. 2020. Laporan Kinerja Direktorat Jenderal Peternakan dan Kesehatan Hewan Tahun 2020. Kementerian Pertanian Indonesia, p:37. Availabe online: http://ditjenpkh.pertanian.go.id/userfiles/file/Lakin_2020_reviu_final.pdf?time=1569466430650.
3. [HPDKI] Himpunan Peternak Domba Kambing Indonesia. 2021. Potret Bisnis Domba dan Kambing Tahun 2020 dan Outlook di Tahun 2021. Himpunan Peternak Domba Kambing Indonesia.Availabe

online:https://www.agropustaka.id/wp-content/uploads/2020/12/agropustaka.id_ILC-12.12_HPDKI_Outlook-Domba-Kambing-2020-dan-Proyeksi-2021.pdf.

4. Bolwig, S., P. Gibbon, dan S. Jones. 2009. The Economics of Smallholder Organic Contract Farming in Tropical Africa. Elsevier Journal, World Development Vol. 37, No.6 pp. 1094-1104. [Disnak]. 2012. Populasi Ternak Domba di Provinsi Jawa Barat Tahun 2011. Dinas Peternakan Provinsi Jawa Barat.
5. Eaton, Charles., Andrew W. Shepherd. 2001. Contract Farming Partnership for Growth. Food and Agriculture Organization of the United Nation, FAO Agricultural Services Buletin 145.
6. Handewi, P. S. Rachman, dan Sudaryanto. 1996. Karakteristik Usaha Ternak Domba di Daerah Lahan Kering (Kasus Dua Desa di Kabupaten Semarang dan Boyolali Jawa Tengah). Prosiding Temu Ilmiah Hasil-Hasil Penelitian Peternakan. Bogor (ID): Balai Penelitian Ternak, Puslitbang Peternakan, Badan Litbang Pertanian.
7. Hernanto, Fadholi. 1995. Ilmu Usahatani. Penebar Swadaya. Jakarta.
8. Kurniawan A, Sukardi, Indrasti NS, dan Suparno O. 2020. Profitability analysis of leather tanning industry with capital structure without interest using canvas financial management approach. IOP Conf. Series: Earth and Environmental Science 472 (2020) 012061.
9. Kurniawan A, Sukardi, Indrasti NS, Suparno O. 2020. Profitability ratio analysis of the leather tanning industry with capital structure of interest loan system. International Journal of Advanced Research. 8(08): 952-959. http://dx.doi.org/10.21474/IJAR01/11573.
10. Maulana, Arief. 2013. Unpad dan 11 Instansi Bentuk Konsorsium Pengembangan Domba Padjajaran. Availabe online: http://www.unpad.ac.id/2013/06/u npad-dan-11-instansi-bentukkonsorsium-pengembangandomba-padjadjaran/.
11. Miyata, S.,N. Minot, dan D. Hu. 2009. Impact of Contract Farming Ion Income: Linking Small Farmers, Packers, and Supermarkets in China. Elsevier Journal, World Development Vol. 37, No. 11, pp. 1781-1790.
12. Saigenji, Yoshiko. 2010. Contract Farming and Its Impact on Production Efficiency and Rural Household Income in the Vietnamese Tea Sector [Disertasi]. Faculty of Agricultural Sciences. University of Hohenheim.
13. Sari, DP. 2012. Analisis Pendapatan Usahaternak Ayam Ras Pedaging Pola Kemitraan dan Mandiri di Kecamatan Gunung Sindur Kabupaten Bogor [Skripsi]. Departemen Ekonomi Sumberdaya dan Lingkungan, Fakultas Ekonomi dan Manajemen, Institut Pertanian Bogor. Bogor
14. Soekartawi. 2002. Teori Ekonomi Produksi dengan Pokok Bahasan Analisis Fungsi Cobb-Douglas. Rajawali Pers, Jakarta
15. Sudarmono, A., & Sugeng, B. (2011). Beternak Domba. Jakarta: Penebar Swadaya
16. Winarso, Bambang. 2010. Prospek dan Kendala Pengembangan Agribisnis Ternak Domba dan Domba di Indonesia. Bogor (ID): Pusat Analisis Sosial Ekonomi dan Kebijakan Pertanian.
17. Yunus, M., Harianto, H., & Rachmina, D. (2014). Pengaruh Kemitraan Terhadap Keuntungan Usaha Penggemukan Domba Di Kabupaten Bogor. Forum Agribisnis : Agribusiness Forum, 4(1), 53-70. https://doi.org/10.29244/fagb.4.1.53-70.