Revenue of broiler farming partnership system post covid-19 (case study in PT Anugerah Kartika Agro Kediri)

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Abstract The broiler is poultry with great potential to be developed. The broiler farm business is still a top priority to produce meat and meet the needs of the community's animal protein. The purpose of the research was to determine how the revenue of the post COVID-19 partnership broiler system. The data were collected from July to August 2020. Research method using case studies. The selected respondents were the broiler partnership plasma of PT Anugerah Kartika Agro in the Kediri area. The data analysis used was descriptive statistics. The results showed that the revenue of post COVID-19 plasma broiler farming was not much different before the COVID-19 existence. As high as the scale of a business, it will increase the revenue. However, on a scale of 4,000 to 6,000 chickens, it decreased due to differences in selling time and prices set by partner companies.

1. Introduction
The broiler farm business is one of the businesses that have the potential to produce meat and increase protein consumption for society. Broilers are chickens that grow quickly and can be harvested in a short time. The genetic advantages possessed by broilers and good feeding can display optimal production performance. The broiler partnership pattern has been chosen because of limited resources on all sides, the shift in the position of the main actors from the government, and the private sector to the society, and the complex and chronic problems.

The current economic development is entering a difficult time for all people in the world. This phenomenon occurs because of the emergence of a new virus that is infecting the world today, namely COVID-19. Indonesia confirmed the first case of the coronavirus infection that caused Covid-19 in early March 2020. Since then, various countermeasures have been made by the government to reduce the impact of the Covid-19 pandemic in various sectors. Almost all sectors are affected, not only by health. The economic sector has also suffered serious impacts due to the coronavirus pandemic. Restrictions on community activities affect business activities which then have an impact on the economy.

This August report from the Central statistics agency (BPS) stated that Indonesia’s economic growth in the second quarter of 2020 was minus 3.32 percent. Previously, in the first quarter of 2020, BPS reported that Indonesia's economic growth only 2.97 percent, down considerably from the growth of 5.02 percent in the same period in 2019. This weakening economic performance also has an impact on the situation of livestock in Indonesia. Therefore, this study aims to analyze the revenue of the broiler farmers' partnership system post Covid-19.
2. Method
This research is a case study on the existing partnership pattern in PT Anugerah Kartika Agro Kediri. Data collection was carried out for one month, namely from June to July 2020. The research respondents were PT. Anugerah Kartika Agro Kediri is the core and broiler farming plasma that follows the partnership pattern of PT. Anugerah Kartika Agro. The plasma farmers used in this research were 77 respondents. The data were obtained for 6 cycle periods and were analyzed using descriptive statistics. To find the total revenue of post-Covid-19 broiler farmers, the following formula is used [1]:

\[
\text{Total Revenue (TR)} = Q \times P
\]

Information:
- \( TR \) = Total Revenue (IDR/period)
- \( Q \) = Total Production
- \( P \) = Price (IDR)

Receipts from the sale of chickens,
Information:
- \( R \) = Revenue (IDR/period)
- \( Q \) = Number of Chickens Sold (life bird)
- \( P \) = Price of Chicken (IDR/period)

Receipts from the sale of manure,

Revenue (R) = Q \times P
Information:
- \( R \) = Revenue (IDR/period)
- \( Q \) = Number of manure (sack)
- \( P \) = Price of manure (IDR/sack/period)

Receipts from the sale of sacks,

Revenue (R) = Q \times P
Information:
- \( R \) = Revenue (IDR/period)
- \( Q \) = Number of Sacks Sold (sheet)
- \( P \) = Sack price (IDR/sheet/period)

3. Result and Discussion
Revenue is the result of multiplying the selling price of the product with total production. Revenue from the broiler farm business at PT Anugerah Kartika Agro consists of principal revenue, consist from the sale of live broiler chickens and other income from the sale of by-products which still have a selling value such as broiler manure and used feed sacks and bonuses from the core company for the results from breeding is the mortality bonus and the FCR bonus. Revenue of broiler farming at PT Anugerah Kartika Agro Kediri based on category can be seen in table 1.

Table 1 shows that the income for each farmer is different even though sometimes the ownership capacity of chickens is the same. The difference in income, some of which is due to the different mortality of each farmer, the feed consumption rate value achieved by each farmer is different. The FCR bonus is calculated if the difference between FCR is 0.201-0.250 the farmer gets a bonus of IDR 110/kg life bird if the difference in FCR is 0.151-0.200 the farmer gets a bonus of IDR 140/kg life bird and if the difference in FCR is ≤ 0.150 the farmer gets a bonus of IDR 180/kg life bird. Revenue from broiler sales gave the largest contribution of 98.9% in category I, 99.1% in category II and 99.3% in category III. The greater the capacity of the chickens, the greater the revenue received by the farmer. The same thing was conveyed by the number of livestock ownership will determine the income to be obtained, the more the amount owned, the income will increase [2].
The price of the chickens depends on the weight of the life bird, where stated in the contract of the purchasing. The price of life bird chickens stated on the contract of purchasing as follows if the weight of life bird is < 1 kg so the price IDR 18,110. If the weight of life bird is 1-1.9 so the price IDR 17,750. If the weight of life bird is 1.20-1.39 kg so the price IDR 17,370. If the weight of life bird is 1.40-1.59 so the price IDR 17,190. If the weight of life bird is 1.60-1.79 so the price IDR 17,150. If the weight of life bird is 1.80-1.99 so the price IDR 17,190. If the weight of life bird is 2.00-2.19 so the price IDR 17,180. If the weight of life bird is 2.20-2.39 so the price IDR 17,220. If the weight of life bird is 2.40-2.59 so the price IDR 17,280. If the weight of life bird is >2.60 so the price IDR 17,330. The same thing is conveyed by Maliton which stated that partnerships can guarantee both the marketing and the price level of the products of farmers [3].

According to Gusasi and Saade (2006), the larger the broiler business scale, the greater the income obtained by the farmer [4]. The large population of broiler that is kept will also affect the results of manure and feed sacks. This also happens on farms in the Partnership of PT Anugerah Kartika Agro Kediri where the revenue earned is influenced by the number of business scales. The bigger scale of the business that is owned, the greater the revenue it will get. But in the category and the same population, the amount of revenue obtained is less than on a smaller scale. This is because the selling price of chickens is different for each farmer, according to the contract agreed with the company and the difference in sales time can affect the price set by the partner company because every time the market price can change. This is by the opinion of Parasdya et al., (2013) which stated that the system used in selling chickens after harvest is determined by the company concerned [5]. Harvesting and marketing are carried out by the company itself by buying at a predetermined contract price based on the amount and weight and subsequently deducting the total input or costs incurred by the company during breeding.

The largest livestock population the respondent is 5,000 chicken, about 65.2%, the livestock population of 5,000-10,000 about 19.7%, while for populations of more than 10,000 is about 15.2%. Business scale is the dominant factor determining entrepreneurial success, this is influenced by several, business capital, the desire to advance business, and courage to take risks, to get a higher income [6]. The population of laying hen has increased from year to year during 2000-2012, an increase of 0.61% [7]. Furthermore Prawira et al [8] explained that the number of laying hens affects the supply of laying hens so that it is hoped that breeders can help to stabilize production volume so the need for chicken eggs can be met. Meanwhile, according to Pakage et al., (2014), approximately 61% of layer chicken farmers are on a medium and large scale, resulting in high production costs for laying hens including costs for chicken food (feed) which almost reaches 80% of the total available funds [9].
Table 1. Revenue of broiler farmers PT Anugerah Kartika Agro Kediri.

| Description         | Category I                          | Category II                        | Category III                        |
|---------------------|-------------------------------------|------------------------------------|-------------------------------------|
|                     | Total (IDR)                         | Reception per kg of body weight (IDR) | (%)       | Total (IDR)                         | Reception per kg of body weight (IDR) | (%)       |
| Broiler sales       | 1,084,286,451                       | 17,175                             | 98.99     | 2,414,433,436                      | 17,116                             | 99.13     |
| Manure              | 3,265,179                           | 52                                 | 0.30      | 7,213,636                          | 51                                 | 0.30      |
| Feed sacks          | 1,968,504                           | 31                                 | 0.18      | 4,389,390                          | 31                                 | 0.18      |
| FCR bonus           | 4,944,604                           | 78                                 | 0.45      | 7,709,910                          | 55                                 | 0.32      |
| Mortality bonus     | 857,614                             | 14                                 | 0.08      | 1,977,046                          | 14                                 | 0.08      |
| Total revenue       | 1,095,322,351                       | 17,350                             | 100.00    | 2,435,723,419                      | 17,267                             | 100.00    |

Source: field data (2020).
4. Conclusion

Based on the research that has been done, it can be concluded that the revenue of broiler farming in the Partnership of PT Anugerah Kartika Agro after post-Covid-19 is not much different from before the existence of Covid-19.

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