

Feasibility Analysis of Broiler Business with Partnership System (Case Study at Mr. Pujiyanto's Farm, Umbuldamar Village, Binangun District, Blitar Regency)

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Abstract: This study aims to analyze the financial feasibility of broiler chicken farming under a partnership scheme between farmers and a core company in Umbuldamar Village, Blitar Regency. The research employed a case study approach using a descriptive quantitative method. Data collected included production costs, revenues, profits, and financial indicators such as Break Even Point (BEP), Revenue-Cost Ratio (R/C), and Payback Period (PP). The results indicate that broiler farming operated through a partnership model is financially feasible. The average R/C ratio was 1.10, BEP was 1,140 chickens, and the average payback period over three years was 3.03 years. The partnership scheme has proven effective in reducing business risks and ensuring product marketing for farmers. This study recommends the development of more equitable partnership models and increased production efficiency to enhance profitability

Keywords: Financial feasibility; Partnership system; BEP; R/C; Payback Period.



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Introduction

Broiler chickens are one of the most widely consumed poultry in Indonesia. The poultry industry in Indonesia is considered to be growing rapidly, particularly in broiler farming (Nurtanti and Indreswari, 2022). This development must also be balanced with the ability of farmers to manage their businesses and maintain their operations. The demand for chicken meat in East Java has continued to increase annually. Data from the Central Statistics Agency (BPS) show that, over the last five years, average chicken meat consumption has increased annually from 0.124 kg/capita/week to 0.158 kg/capita/week in 2019-2023. This is also accompanied by an increase in chicken meat production in East Java, recorded from 433,757 tons in 2021 to 552,556 tons in 2023 (BPS, 2024). It is predicted that this trend will continue to increase in the future, given the current government policy on the free nutritious lunch program; therefore, the role of broiler chicken farmers is crucial.

Broiler chicken farming using a partnership system is a form of business collaboration built on the principle of mutual strengthening and mutual benefit between farmers (plasma) and the core company. One of the main advantages of this system is that farmers are not responsible for business losses, except for previously incurred operational costs (Kurnianto, 2019). However, this partnership system also has a weakness, namely a relatively low profit margin, especially when production productivity falls below standard. Under these conditions, farmers can actually experience operational losses (Mahyudi and Husinsyah, 2019). For the partner company (core company), the advantage of this model lies in the efficiency of operational and maintenance costs, as compensation provided to plasma is adjusted according to the level of productivity achieved (Srimindarto, 2015). On the other hand, a weakness of this system is that all business losses are borne by the core party, including losses resulting from improper sales, for example, when plasma farmers sell chickens to third parties without going through the core company (Hanum, 2011).

Business feasibility analysis is an evaluative approach used to assess whether an existing or prospective business activity is feasible (Santa, 2020). This analysis plays a crucial role in the investment decision-making process, particularly in efforts to expand existing businesses (Abou-Moghli and Al-Abdallah, 2012). For companies focused on maximizing profits (total profit), the primary consideration is the payback period for the capital invested in the project. In other words, before undertaking a business, it is necessary first to calculate the potential return on invested funds, including the speed of return on investment and the project's ability to generate expected financial returns within a specified timeframe.

Mr. Pujiyanto's farm is a broiler chicken farm run under a partnership model. The farm is located in Umbuldamar Village, Binangun District, Blitar Regency. Mr. Pujiyanto's farm has a capacity of 8,000 chickens, with a cage measuring 40 meters long and 8 meters wide, consisting of two levels (upper and lower). The cage structure is constructed using a combination of cast concrete, wood, and bamboo, and features an asbestos roof. Mr. Pujiyanto's broiler farm has been operating for over 10 years. Under this partnership model, the core company provides livestock production facilities (such as DOC), feed, medicines, vitamins, and technical assistance. The breeder (plasma) is responsible for delivering cages, equipment, and labor, as well as maintaining chickens according to established standards. All harvests must be sold to the core company at a price agreed upon at the beginning of the contract, and profits are shared based on production results and achievement of target harvest weights.

Materials and Methods

Research Location and Timeline

This research was conducted in Umbuldamar Village, Binangun District, Blitar Regency, with a broiler farm with a capacity of 8,000 chickens. The researcher used a case study method, as the farm had been operating for over ten years, thus assuming experience and business stability. The research period was from April to July 2025.

Research Method

This research used a quantitative descriptive approach. According to Sugiyono (2018), descriptive research aims to provide a systematic, factual, and accurate description of a phenomenon or situation based on existing facts. In this study, the descriptive method was employed to analyze the financial feasibility of a broiler chicken business operating under a partnership model at Mr. Pujiyanto's farm. The feasibility analysis was conducted using the Break-Even Point (BEP), Revenue-to-Cost Ratio (R/C), and Payback Period (PP) calculations as the primary indicators for 16 periods from 2023 to 2025.

Data Collection Methods and Procedures

The data collection procedure in this study was conducted using two main approaches:

Interview Technique:

Interviews were conducted directly with business owners and other involved parties to obtain in-depth information regarding the partnership model implemented, the amount of investment and capital expended, and the profit generated from these business activities.

Observations:

Observations were conducted to directly observe the farm's operational activities, record work patterns, facilities used, and challenges faced in the broiler farming process. These observations aimed to validate the interview results and gain a deeper understanding of the situation on the ground.

Results and Discussion

Result and discussion must be written in the same part. They should be presented continuously start from the main result to the supporting results and equipped with a discussion. Avoid the supporting results that have been written on the introduction section. Unit of measurement used should follow the prevailing international system. All figures and tables placed separately at the end of manuscript pages and should be active and editable by editor. Written in Times New Roman 12 Font Size, and single space line.

Company Profile

This research was conducted at Mr. Pujiyanto's farm in Umbuldamar Village, Binangun District, Blitar Regency. Geographically, the farm borders Tawangrejo Village to the north, Unggahan Village to the west, Sambigede Village to the south, and Ngadri Village to the east. The farm is approximately 700 meters from the main road in Umbuldamar Village and approximately 100 meters from residential areas to the west. The farm is surrounded by plantations on the east, south, and north sides. Access to the farm is relatively easy and adequate, with roads wide enough to accommodate large vehicles, such as trucks.

Mr. Pujiyanto's farm has a capacity of 8,000 chickens, housed in a coop measuring 40 meters long and 8 meters wide, with two levels (upper and lower). The coop structure is constructed using a mixture of cast concrete, wood, and bamboo, and features an asbestos roof. This livestock business is run through a partnership with a core company that provides livestock production inputs (sapronak), including day-old chicks (DOC), feed, medicines, and technical training. Furthermore, the core company guarantees the purchase price at harvest, allowing farmers to focus more on livestock maintenance, while the company assumes most of the market risk.

Intensive husbandry management is carried out with strict biosecurity measures. Pens are sanitized using disinfectant/formalin after harvest, and a 10–14-day downtime period follows to break the disease cycle. Chickens are raised in a semi-enclosed house system with good air circulation to maintain ideal temperature and humidity.

The core company fully supplies feed in accordance with partnership standards. Feeding is carried out in stages according to the chickens' growth stages: starter, grower, and finisher, with a frequency of twice daily and unlimited water supply. Feed efficiency is ensured by regulating chicken density according to standards.

Health management is carried out by administering medication, vitamins, probiotics, and multivitamins to boost the chickens' immunity. Farmers also routinely conduct daily health checks on their chickens, monitoring changes in appetite, feces, and activity. Sick chickens are immediately isolated to prevent the transmission of disease. Biosecurity measures also include limiting visits by outsiders.

Broiler marketing is handled by the core company, as per the partnership contract. The core company purchases live chickens at a price agreed upon before the breeding period begins, eliminating the risk of market price fluctuations. Farmers are solely responsible for raising the chickens to achieve optimal harvest weights, meeting the partnership's targets.

Business feasibility analysis

Business feasibility analysis is crucial for making investment decisions to expand existing businesses (Abou-Moghli and Al-Abdallah, 2012). For companies established for profit, the most critical factor is the recoupment of the invested capital. This means that before starting a business, it is necessary first to calculate whether the project or enterprise can truly recoup the investment within a specified timeframe and provide other expected financial benefits. In this business feasibility

analysis, researchers focused on examining the economic feasibility aspect. Financial analysis is the activity of assessing and determining in rupiah terms aspects deemed feasible based on decisions made during the business analysis phase. This financial aspect discusses revenue, working capital, business costs, income, and cash flow. The following are the results of an economic data analysis using several formulas, including calculations for Break-Even Point (BEP), Return on Assets (ROA), and Profit and Loss (P&L).

Break-Even Point (BEP)

BEP is necessary to ensure that investments do not result in a loss or profit. BEP production is the break-even point calculated based on the number of products produced. According to Rahim and Hastuti (2014), BEP must be kept lower than the selling price to maintain business viability. The following are the results of the BEP calculation in this study:

Table 1. Break Even Point Production 2023

BEP 2023	Period 1	Period 2	Period 3	Period 4	Period 5
BEP Production (kg)	14.369	11.580	12.772	15.595	12.819
BEP Price (Rp)	19.012	19.346	19.932	20.956	20.730

Table 2. Break Even Point Production 2024

BEP 2024	Period 1	Period 2	Period 3	Period 4	Period 5	Period 6	Period 7
BEP Production (kg)	14.521	13.570	28.991	14.812	17.889	13.821	16.253
BEP Price (Rp)	19.616	20.763	33.348	21.063	21.132	21.056	20.894

Table 3. Break Even Point Production 2025

BEP 2024	Period 1	Period 2	Period 3	Period 4	Period 5	Period 6	Period 7
BEP Production (kg)	14.521	13.570	28.991	14.812	17.889	13.821	16.253
BEP Price (Rp)	19.616	20.763	33.348	21.063	21.132	21.056	20.894

BEP production and prices in 2023 indicate that total production reached only 11,580 kg, with a BEP price of IDR 19,346/kg, suggesting a relatively low production cost per kilogram and an optimal level of business efficiency. The causes include a good Feed Conversion Ratio (FCR), low mortality rates, and good chicken health, ensuring that no diseases attack. Period with High BEP (Least Efficient - Period 4) Production reached 15,595 kg (highest), with a BEP price of IDR 20,956 / kg (also the highest), indicating that the production cost per kilogram of chicken is prohibitive. The causes include a poor Feed Conversion Ratio (FCR), disease outbreaks among chickens, and a high mortality rate among them. Moderate Category Period (Efficient – Periods 1, 3, and 5) The Breakeven Point (BEP) value is in the range of 12,000–14,000 kg, indicating a relatively good level of efficiency, although not as optimal as Period 2. Minor variations primarily influence the reasons for this period of efficiency in feed utilization and chicken mortality.

The BEP production and price in 2024 indicate a Low BEP Period (Most Efficient – Periods 1, 2, and 6). Low production to break even (13,570–13,821 kg) and a relatively low BEP price (<Rp

21,000/kg). The causes include a Feed Conversion Ratio (FCR) that promotes optimal chicken growth with less feed, low mortality rates, and good chicken health, resulting in no disease outbreaks. Period with High BEP (Least Efficient – Period 3) BEP Production 28,991 kg (very high) and BEP Price Rp 33,348/kg (highest in all periods) is the least efficient, the causes include Severe disease attacks resulting in high mortality and low weight of living chickens, so that production (kg) drops drastically, a lot of feed but not much becomes meat (poor FCR), and the selling price of chicken is not high enough. Hence, the breakeven price point is huge. Period with Medium BEP (Efficient – 1, 4, 5, and 7). This period remains in the reasonable/efficient category, despite the BEP price being above Rp 21,000/kg. The increase in BEP was primarily due to a slight decrease in productivity, although not as severe as in Period 3.

The BEP for production and prices in 2025 shows a period with a low BEP (most efficient – Period 1). The BEP production of 14,333 kg and a BEP price of Rp 18,507/kg (the lowest) indicate low production costs and good efficiency. The causes include optimal FCR, efficient feed, stable feed prices, controlled variable costs, and low mortality. A period with a high BEP (least efficient – Periods 4 and 3) indicates a decrease in chicken production, requiring more production to break even. Period 3 (with a Highest price of IDR 19,112/kg) shows that production costs per kilogram have increased. The causes include suboptimal chicken growth, slightly decreased harvest weight, poor FCR, an Increase in feed or medicine prices, and a Slight increase in mortality, although not as severe as in 2024—moderate Period (Efficient – Production Periods 2 and 3). Still within reasonable limits, BEP fluctuations are only influenced by slight differences in feed prices and productivity levels.

Revenue Cost Ratio (R/C Ratio)

The R/C Ratio is an indicator of business efficiency calculated by comparing total revenue to total costs incurred during a production cycle. A business is considered profitable or feasible if this ratio is greater than one ($R/C > 1$). Conversely, if the R/C value is less than one ($R/C < 1$), the business is considered economically unfeasible. Meanwhile, if the ratio is equal to one ($R/C = 1$), the business is at the break-even point, meaning it neither makes a profit nor experiences a loss (Rahim and Hastuti, 2014). According to Rahim and Hastuti (2014), a high R/C value is an indicator of efficiency. In this study, the level of business financial efficiency was analyzed using the R/C Ratio approach. The following are the results of the R/C Ratio calculation:

Table 4. R/C Ratio 2023

R/C 2023	Period 1	Period 2	Period 3	Period 4	Period 5	R/C 2023	Period 1
R/C	1,136227	0,891453	0,938445	1,208318	1,007185	R/C	1,136227

Table 5. R/C Ratio 2024

R/C 2024	Period 1	Period 2	Period 3	Period 4	Period 5	Period 6	Period 7
R/C	1,025	0,90	1,3	1,04	1,26	0,97	1,160

Table 6. R/C Ratio 2025

R/C 2025	Periode 1	Periode 2	Periode 3	Periode 4
R/C	1,05	1,11	1,03	1,13

R/C in 2023 shows the Period with the Highest R/C (Most Profitable – Period 4). The R/C value of 1.208 means that every Rp 1 of costs incurred generates Rp 1.208 in revenue. The business in this Period is the most profitable due to the efficient use of costs. The reason is that chicken productivity is optimal with good harvest weight, good FCR, and efficient feed consumption for growth. Period with the Lowest R/C (Loss – Period 2 and 3) The R/C value in period 2 (0.891) and period 3 (0.938) is below 1, indicating that the business is experiencing losses because revenue is

smaller than production costs, still below 1, The cause is poor FCR, chicken body weight production is not optimal and mortality is relatively high. Period with Low R/C but No Loss (Periods 5 and 1). The R/C in period 5 (1.007) and period 1 (1.136) is slightly above 1, indicating it is quite profitable. The causes are fluctuating feed prices and a decline in chicken productivity (suboptimal FCR).

The R/C in 2024 shows the periods with the highest R/C (Most Profitable – Periods 3 and 5). Period 3: R/C 1.30 indicates the highest, meaning that every Rp 1 of costs generates Rp 1.30 in revenue. Period 5: R/C 1.26 is also very profitable, although it is slightly below Period 3. The business in both periods is highly efficient and profitable due to optimal FCR, efficient feed use for chicken growth, low mortality, and good chicken health. The periods with the lowest R/C (Loss-making – Periods 2 and 6) are Period 2: R/C 0.90 and Period 6: R/C 0.97, both below 1, indicating a loss. The business is not financially viable in both periods. This is due to chicken health problems, which lead to increased mortality or low harvest weights, and increase production costs. Periods with Moderate R/C (Periods 1, 4, and 7): Period 7: R/C 1.160, Period 4: R/C 1.04, and Period 1: R/C 1.025 are considered financially viable because they are >1, but profits are not greater than those of periods 3 and 5. This is due to the FCR being quite good but not as optimal as periods 3 and 5.

The R/C in 2025 indicates the Period with the Highest R/C (Most Profitable – Periods 4 and 2). Period 4: R/C 1.13 is the highest, meaning that every Rp 1 of costs generates Rp 1.13 in revenue. Period 2: R/C 1.11 is also profitable. These two periods are the most financially optimal. This is due to good FCR, efficient feed for chicken growth, relatively high and stable chicken selling prices, well-maintained chicken health, and low mortality rates. Periods with Medium R/C (Periods 1 and 3). Period 1: R/C 1.05 and Period 3: R/C 1.03 indicate that both are still financially viable because >1, but the profit margin is thin; the business remains profitable, but the efficiency is not as high as periods 2 and 4. The reason is that the FCR is quite good but not optimal.

Payback Period (PP)

The payback period is the time required to recover the initial investment funds spent on a business. This calculation measures the time it takes for the net cash flow to cover the total investment costs. The standard 3–5 years mentioned by Suprpto (2017) are as follows. The following are the results of the payback period calculation in this study:

Table 7. Playback Period (PP)

Payback Period (PP)	Year 2023	Year 2024	Year 2025
Payback Period (PP)	5,3 Year	1,2 Year	2,6 Year

The Payback Period in 2023 was 5.3 years (Long/Not Feasible) because the return on investment of 5.3 years is considered quite long and inefficient for a broiler chicken business. This is because the return on investment does not meet the feasibility standards for broiler chicken businesses, which typically have a duration of 3 to 5 years. This is due to poor BEP and R/C in several periods (as seen in Periods 2 and 3, where R/C <1), high production costs due to rising feed or medicine prices, and high chicken mortality, resulting in decreased revenue.

The Payback Period in 2024 was 1.2 years (Very Fast/Very Feasible). This business is very efficient because the capital was returned in only 1.2 years, much faster than the general standard (3–5 years). This is due to a good BEP and R/C for most periods (e.g., Period 3 R/C 1.30 and Period 5 R/C 1.26), as well as very efficient maintenance and feed management, resulting in low mortality.

The Payback Period in 2025 shows 2.6 years (Efficient / Still Feasible) because the 2.6-year return on investment period is in accordance with the feasibility standards for broiler businesses, the

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reason being that BCR and R/C in most periods are above 1, indicating stable profits, and feed management is quite good, although not as optimal as in 2024.

Conclusion

Based on the analysis results using the BEP, R/C Ratio, and Payback Period indicators for the 2023–2025 period, Mr. Pujiyanto's partnership broiler chicken farming business is declared feasible to run. Because on average for 3 years this business shows Profit: Rp35,390,000 indicating the company can generate good net profit, BEP: Rp98,428,667 indicates the minimum income limit that must be achieved so that the business does not incur losses, and the actual income achievement is above this value in most periods, R/C Ratio: 1.65 (>1) confirms that every one rupiah of costs incurred can generate Rp1.65 in revenue, so the business is classified as efficient, Payback Period (PP): 2.4 years is below the feasibility standard of 3–5 years, which means that investment capital can be returned in a relatively short time.

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