

INCOME ANALYSIS OF BROILER CHICKEN FARMING: A CASE STUDY IN SINDANGKASIH VILLAGE, SOUTH KONAWA REGENCY, INDONESIA

Hairil Adzulyatno Hadini¹, Muh Haidir Hakim^{2*}, Andini Sulfitriana³, Wa Ode Haimansrah⁴
^{1,2,3,4}Department of Animal Husbandry, Faculty of Animal Husbandry, Halu Oleo University

*corresponding email: muhhaidirhakim@uho.ac.id

ABSTRACT

This study aimed to analyze the income and financial feasibility of broiler chicken farming in Sindangkasih Village, West Ranomeeto Subdistrict, South Konawe Regency. The research was conducted from September to October 2024 using a purposive sampling method. Respondents consisted of two broiler farmers with production scales of 3,000 and 4,000 birds per cycle. Primary data were collected through interviews using questionnaires, while secondary data were obtained from relevant institutions. Data were analyzed using income analysis, R/C ratio, B/C ratio, and break-even point (BEP). The results showed that the average total production cost was IDR 116,195,931 per production period, consisting of fixed costs of IDR 2,345,931 and variable costs of IDR 113,850,000. Feed was the largest cost component, indicating its important role in determining profitability. The average total revenue was IDR 128,240,000, mainly derived from broiler sales and additional revenue from manure sales. The average income obtained was IDR 12,044,069 per production period. The R/C ratio was 1.10 and the B/C ratio was 0.10, indicating that the business was financially feasible. Furthermore, actual production and selling price were higher than the BEP quantity and BEP price. Therefore, broiler chicken farming in Sindangkasih Village is profitable and feasible to continue, although its sustainability depends on feed efficiency, mortality control, and price stability.

Keywords: Broiler chicken, income, feasibility, R/C ratio, break-even point

INTRODUCTION

The continuously increasing demand for animal protein encourages the development of various livestock subsectors as providers of nutritious food for society. At the household level, animal-protein consumption in Indonesia is still influenced by socio-economic conditions and variations in dietary patterns; therefore, strengthening animal-based food production remains relevant to support adequate nutrition for the population (Umaroh & Vinantia, 2018). Broiler chickens have become a strategic commodity because their products are relatively affordable and widely accepted by the market, and they contribute as an important source of animal protein. Studies on broiler meat quality also indicate quality characteristics and composition that support its position as a protein-based food ingredient (Adji et al., 2021).

From a business perspective, broiler farming has the advantage of a short production cycle, enabling rapid capital turnover. However, the sustainability of broiler enterprises at the farmer level is essentially determined by their ability to generate stable net income in each production cycle. This net income is strongly affected by the production cost structure especially feed and day-old chicks (DOC), which generally constitute the largest cost components so input-use efficiency becomes a key determinant of business success. Scopus-indexed studies emphasize the importance of cost and profitability analysis in broiler production because operating cost components largely determine business margins (Karaman et al., 2023). Research on livestock enterprises in Indonesia also shows that income analysis (cost–revenue–profit) is important as a basis for assessing financial feasibility (Wachid et al., 2025).

In addition to costs, technical production aspects such as feed efficiency (e.g., feed conversion ratio/FCR), growth rate, and mortality directly affect productivity and the cost per unit of output. Scientific literature on broiler production systems shows that feed intake patterns are associated with growth and efficiency (including FCR), which ultimately influence the economic performance of the enterprise (Jie et

al., 2024). Therefore, measuring broiler farm income needs to examine production costs in detail to accurately reflect the actual profit.

In Indonesia, broiler farmers' income also faces challenges from external factors, particularly fluctuations in live-bird and carcass prices and interregional price disparities. These conditions increase uncertainty in margins, making detailed income analysis necessary to assess financial feasibility at the farm level. Scopus-indexed research reports dynamics of broiler/carcass price fluctuations and disparities before, during, and after the pandemic, with implications for income risk among business actors (Suganda et al., 2024). Beyond market dynamics, institutional aspects such as partnerships/contract farming are also widely discussed because they relate to productivity and income. Studies in Indonesia indicate that certain factors influence farmers' participation in contract farming (Rondhi et al., 2020), as well as the potential of contract broiler farming as a pathway to improving rural welfare (Setiadi et al., 2022).

At the local level, there are two broiler farming units in Sindangkasih Village, South Konawe Regency, with a rearing population of approximately 3,000–4,000 birds per cycle. Labor is provided by the farmers' families, while capital comes from both own capital and bank loans. Costs incurred include housing, equipment, DOC, feed, medicines, vaccination, and vitamins, with a harvest age of around 30–35 days. Although broiler farming has the potential to increase farm household income, location-specific information on the fixed and variable cost structure, revenue, and net income at a scale of 3,000–4,000 birds in this area remains limited. Therefore, this study is important to provide empirical evidence on broiler farm income in Sindangkasih Village as a basis for recommendations on cost efficiency and strengthening the long-term sustainability of farmers' enterprises.

MATERIALS AND METHODS

This study was conducted from September to October 2024 in Sindangkasih Village, West Ranomeeto Subdistrict, South Konawe Regency. The research location was selected purposively. The respondents in this study were broiler chicken farm owners in Sindangkasih Village, totaling two farmers with broiler populations of 3,000 and 4,000 birds. The data used in this study consisted of primary and secondary data. Primary data were obtained directly from the respondent farmers through interviews guided by a previously prepared questionnaire, while secondary data were obtained from agencies/institutions related to this study, such as Statistics Indonesia (BPS), the Plantation and Livestock Service, and the Agricultural Extension Center (BPP). Data were collected and analyzed using the following formulas: (Kurnianto et al., 2018)

- a. Income was calculated using the formula :

$$\pi = TR - TC$$

- b. R/C Ratio analysis used the formula:

$$R/C \text{ ratio} = \frac{TR}{TC}$$

- c. B/C Ratio analysis used the formula:

$$B/C \text{ ratio} = \frac{\pi}{TC}$$

- d. Break Even Point (BEP) refers to the sales value of production in a certain period that is equal to the costs incurred. Thus, at this point the entrepreneur neither experiences a loss nor earns a profit (break-even point) (Rifqi et al., 2024).

The BEP was calculated using BEP (units) and BEP (price) (Batu et al., 2021).

$$BEP \text{ Units} = \frac{TC}{\text{Broiler Chiken Price (IDR)}}$$

$$BEP \text{ Price} = \frac{TC}{\text{Total Production (Kg)}}$$

Notes :

π = Income (IDR)

TR = Total Revenue (IDR)

TC = Total Cost (IDR)

B/C ratio = *Benefit Cost Ratio*

R/C ratio = *Revenue Cost Ratio*

RESULTS AND DISCUSSION

1. Production Costs of Broiler Chicken Farming

Production costs are the expenses incurred by broiler chicken farms from the beginning of production until harvest, during which the farm obtains its main product in the form of high-quality chicken body weight, and up to the marketing stage so that the farm earns a profit. Production costs consist of fixed costs and variable costs. The fixed costs include depreciation of housing and equipment, as well as land and building tax (PBB). Meanwhile, the variable costs include the costs of day-old chicks (DOC), feed, electricity, medicines, and labor. The average production costs of broiler chicken farming in Sindangkasih Village are presented in Table 1.

Table 1. Average production costs of broiler chicken farming in Sindangkasih Village

Fixed Costs		Volume	Unit	Unit Price	Total Cost (IDR/Period)
1	Depreciation of housing and equipment	1	Package		1.377.156
2	Land tax	1	Month	18.775	18.775
3	PDAM (water utility)	1	Month	200.000	200.000
4	Electricity + water bill	1	Month	750.000	750.000
Total Fixed Costs					2.345.931
Variable Costs		Volume	Unit	Unit Price	Total Cost (IDR/Period)
1	DOC	3.500	Birds	9.000	31.500.000
2	Feed	1	Package		77.865.000
3	Medicines and vitamins	1	Package		810.000
4	Gas	25	Units	25.000	625.000
5	Labor cost	3050	Birds	1.000	3.050.000
Total Variable Costs					113.850.000
Total Production Costs					116.195.931

Source: Processed primary data, 2024.

Table 1 shows that the average fixed cost of broiler chicken farming in Sindangkasih Village was IDR 2,345,931, with the highest component being depreciation of housing and equipment amounting to IDR 1,377,156, and the lowest component being land tax amounting to IDR 18,775. The average variable costs incurred by broiler chicken farms in Sindangkasih Village were IDR 113,850,000, with the highest component being feed costs amounting to IDR 77,865,000, and the lowest component being gas purchases amounting to IDR 625,000. The total cost of broiler chicken farming in Sindangkasih Village averaged IDR 116,195,931. In Karangmangu Village, the average total cost per production period was IDR 705,073,719, with a significant proportion associated with variable costs such as feed and labor (Nadia, 2025).

2. Revenue of Broiler Chicken Farming

Revenue refers to the gross income received by farmers before deducting the costs incurred. In broiler farming, revenue is obtained from the sale of chickens and the sale of by-products (chicken manure). In other words, revenue in a broiler enterprise is the income generated from selling all outputs produced. Revenue in broiler chicken farming comes from the sale of broiler chickens and the sale of livestock feces (Batu et al., 2021). The average revenue of broiler chicken farming in Sindangkasih Village is presented in Table 2.

Table 2. Average Revenue of Broiler Chicken Farming in Sindangkasih Village

No	Description	Volume	Unit	Unit Price	Total Revenue (IDR/Month)
1	Sale of broiler chickens (3,050 birds)	5.795	Kg	22.000	127.490.000

2	Manure	50	sacks	15.000	750.000
total receipts					128.240.000

Source: Processed primary data, 2024.

Table 2 shows that the average total revenue of broiler farming in Sindangkasih Village was IDR 128,240,000, consisting of manure sales (50 sacks) amounting to IDR 750,000 and broiler chicken sales (5,795 kg) amounting to IDR 127,490,000. This composition confirms that revenue in broiler production is generally dominated by chicken sales, while manure serves as additional revenue (a by-product) that can be sold as fertilizer. The level of revenue is influenced by production/harvest weight (output) and the selling price. Under partnership (contract farming) systems, production and price variables (as recorded in the RHPP) have been shown to affect business results; therefore, live weight at harvest and the selling price based on market mechanisms and/or contract provisions are the main determinants of revenue value (Viqih, 2023).

3. Income, R/C Ratio, B/C Ratio, and BEP of Broiler Chicken Farming

Income analysis is a comparison between total revenue and total costs. Income analysis is conducted to provide an overview of production and selling prices, which ultimately affect traders'/farmers' income in broiler chicken enterprises (Gobel et al., 2022). Income or profit can be achieved when the revenue obtained is greater than the costs incurred; the larger the difference between revenue and costs, the greater the profit or income that can be earned. This indicates that, economically, the business is worth maintaining or continuing (Fauzi & Lestari, 2024). The average income of broiler chicken farming in Sindangkasih Village is presented in Table 3.

Table 3. Average Income, R/C Ratio, B/C Ratio, and BEP of Broiler Chicken Farming in Sindangkasih Village

No.	Description	Total (IDR/Month)
1	Total Revenue	128.240.000
2	Total Production Costs	116.195.931
	Income (Profit)	12.044.069
	R/C Ratio	1,10
	B/C Ratio	0,10
	BEP (Quantity) (kg)	5.281
	BEP (Price) (IDR)	20.051

Source: Processed primary data, 2024.

Table 3 shows that the average income from broiler chicken farming in Sindangkasih Village was IDR 12,044,069. In Karang Intan Subdistrict, Banjar Regency, total income was IDR 12,249,436 with a population of 4,203 birds (Saputra et al., 2020).

The R/C ratio analysis is the comparison between total revenue and total costs. The return–cost ratio is used to assess the relative profitability of a business and is considered feasible to develop if the R/C ratio is greater than 1 (Fauzi & Lestari, 2024). Table 3 shows that the R/C ratio for broiler chicken farming in Sindangkasih Village was 1.10, meaning that for every IDR 1,000 in costs incurred, the farmer would obtain revenue of IDR 1,100. An R/C ratio greater than 1 indicates that broiler chicken farming in Sindangkasih Village is financially feasible. This finding is consistent with (Illahi et al., 2019), who reported an R/C ratio of 1.10 for partnership-based broiler production in Nanggung Subdistrict, Bogor Regency.

The B/C ratio is an analytical method used to determine whether a business is feasible to continue by comparing total income (profit) with total costs. The B/C ratio for broiler chicken farming in Sindangkasih Village was 0.10, meaning that for every IDR 1,000 in costs incurred, the farmer would earn an income of IDR 100. A B/C ratio greater than 0 indicates that broiler chicken farming in Sindangkasih Village is feasible to operate. This result is higher than that reported by (Rifqi et al., 2024), for a poultry slaughtering business in Tatakan Village, Tapin Subdistrict, which had a B/C ratio of 0.06.

Break-even point (BEP) analysis is a technique used to examine the relationship between total costs and expected profit, helping to determine at what sales and production volumes a business neither incurs

losses nor earns profits. In general, BEP is a condition in which a business breaks even experiencing neither a loss nor a gain (Irmayani et al., 2025; Silondae et al., 2019).

Based on Table 3, the BEP price for broiler chicken sales was IDR 20,051 per kg. This indicates that with a production capacity of 5,795 kg, selling broiler chickens at IDR 20,051 per kg would allow the broiler business in Sindangkasih Village to reach the break-even point (return of capital). The selling price applied by the farmers was IDR 22,000 per kg, which is higher than the BEP price; therefore, the farmers can generate profit because the selling price exceeds the break-even price.

CONCLUSIONS

Broiler chicken farming in Sindangkasih Village, West Ranomeeto Subdistrict, South Konawe Regency, is financially feasible and profitable. The average total production cost was IDR 116,195,931 per production period, while total revenue reached IDR 128,240,000, resulting in an average income of IDR 12,044,069. The feasibility indicators showed an R/C ratio of 1.10 and a B/C ratio of 0.10, indicating that the business is viable to continue. In addition, the actual production of 5,795 kg and selling price of IDR 22,000/kg were higher than the BEP quantity of 5,281 kg and BEP price of IDR 20,051/kg, confirming that the business operated above the break-even point. Overall, broiler farming in this area can support household income, but profitability depends on feed efficiency, DOC prices, mortality control, and selling price stability

REFERENCES

- Adji, D., Susanty, A., & Tafsir, M. (2021). Analisis kualitas daging ayam broiler asal pasar swalayan dan pasar tradisional di kota medan sumatera utara. *Jurnal Sain Veteriner*, 39(3), 224. <https://doi.org/10.22146/jsv.54354>
- Batu, H. R. Lumban., Fitriani, Anita., & Firman, Achmad. (2021). Analisis Break Even Point pada Usaha Peternakan Ayam Broiler dengan Sistem Pemeliharaan Sistem Closed House. *Jurnal Sosial Bisnis Peternakan*, 3(1), 28–32. <https://doi.org/10.24198/jsbp.v3i1.50186>
- Fauzi, A., & Lestari, R. D. (2024). Studi Kelayakan Usaha Ternak Ayam Broiler Pada Pola Mandiri Dan Pola Kemitraan di Kabupaten Klaten. *Agricultural Socio-Economic Empowerment and Agribusiness Journal*, 2(2), 83. <https://doi.org/10.20961/agrisema.v2i2.80752>
- Gobel, R. A., Kalangi, L. S., & V Manese Fakultas Peternakan Universitas Sam Ratulangi, M. A. (2022). Analisis pendapatan peternak ayam broiler dengan open house system dan closed house system di Kabupaten Minahasa Utara. *Zootec*, 42(2), 317–326.
- Illahi, N. M. A., Novita, I., & Masithoh, S. (2019). Analisis pendapatan peternakan ayam broiler pola kemitraan di kecamatan nanggung kabupaten bogor. *Jurnal Agribisains*, 5(2). <https://doi.org/10.30997/jagi.v5i2.2320>
- Irmayani, I., Semaun, R., & Asyasti, A. F. (2025). Analisis Pendapatan Usaha Peternakan Ayam Broiler di Desa Abbanuangnge Kecamatan Maniangpajo Kabupaten Wajo. *Jurnal Peternakan Lokal*, 7(1), 43–53. <https://doi.org/10.46918/peternakan.v7i1.2623>
- Jie, Y., Wen, C., Huang, Q., Gu, S., Sun, C., Li, G., Yan, Y., Wu, G., & Yang, N. (2024). Distinct patterns of feed intake and their association with growth performance in broilers. *Poultry Science*, 103(9), 103974. <https://doi.org/10.1016/j.psj.2024.103974>
- Karaman, S., Taşcıoğlu, Y., & Bulut, O. D. (2023). Profitability and Cost Analysis for Contract Broiler Production in Turkey. *Animals*, 13(13), 2072. <https://doi.org/10.3390/ani13132072>
- Kurnianto, A., Usaha, A., Subekti, E., & Nurjayanti, E. D. (2018). Business analysis of broiler chicken with inti-plasma partnership scheme (Case Study In Plasma Farmer of PT. Bilabong Limpung District Batang Regency). *MEDIAGRO*, 15(2), 47–57.
- Nadia, N. T. A. (2025). analisis pendapatan dan kelayakan usaha peternakan ayam broiler di desa karangmangu kecamatan ngambon kabupaten bojonegoro. *Oryza - Jurnal Agribisnis Dan Pertanian Berkelanjutan*, 8(2), 46–56. <https://doi.org/10.56071/oryza.v8i2.1024>
- Rifqi, M., Herliani, H., & Biyatmoko, D. (2024). Analisis kelayakan usaha broiler di peternakan mahmuddin desa tatakan kecamatan tapin selatan kabupaten tapin. *ZIRAA 'AH MAJALAH ILMIAH PERTANIAN*, 49(2), 338. <https://doi.org/10.31602/zmip.v49i2.14901>
- Rondhi, M., Aji, J. M. M., Khasan, A. F., & Yanuarti, R. (2020). Factors Affecting Farmers' Participation in Contract Farming: The Case of Broiler Sector in Indonesia. *Tropical Animal Science Journal*, 43(2), 183–190. <https://doi.org/10.5398/tasj.2020.43.2.183>

- Saputra, B. A., Muzdalifah, M., & Aziz, Y. (2020). Analisis pendapatan usaha peternakan ayam broiler pola kemitraan di kecamatan karang intan kabupaten banjar. *Frontier Agribisnis*, 4(1), 67. <https://doi.org/10.20527/frontbiz.v4i1.2622>
- Setiadi, A., Santoso, S. I., Mukson, M., & Roessali, W. (2022). Contract broiler farming as an effective pathway to improve rural prosperity in Indonesia. *International Social Science Journal*, 72(244), 461–473. <https://doi.org/10.1111/issj.12330>
- Silondae, H. . , Panelewen, V. V. J., & Kalangi, J. K. J. (2019). Analisis ekonomi pemanfaatan jus limbah wortel (*daucus carota* l.) Sebagai feed supplement ternak ayam kampung. *AGRI-SOSIOEKONOMI*, 15(3), 573. <https://doi.org/10.35791/agrsosek.15.3.2019.26497>
- Suganda, A., Mujahidin Fahmid, I., Baba, S., & Salman, D. (2024). Fluctuations and disparity in broiler and carcass price before during and after covid-19 pandemic in Indonesia. *Heliyon*, 10(8), e29073. <https://doi.org/10.1016/j.heliyon.2024.e29073>
- Umaroh, R., & Vinantia, A. (2018). Analisis Konsumsi Protein Hewani pada Rumah Tangga Indonesia. *Jurnal Ekonomi Dan Pembangunan Indonesia*, 18(3), 22–32. <https://doi.org/10.21002/jepi.2018.13>
- Viqih, M. (2023). The Influence Of Production Variables And Market Prices On The Profits Of Farmers And Companies At Core Plasma Partnership System Of Broiler Chicken In Cirebon. *MAHATANI*, 6(1), 142–2.
- Wachid, S. N., Yuliati, N., & Laily, D. W. (2025). Analisis pendapatan usaha peternakan ayam broiler kandang tertutup (Studi Kasus di CV. Ayam Dekem Tengah Sawah) (Analysis of Income Closed Cage Broiler Chicken Farming Business (Case Study at CV. Ayam Dekem Tengah Sawah). *Jurnal Ilmiah Sosio Agribis*, 25(1), 214. <https://doi.org/10.30742/jisa25120254483>