

Descriptive Analysis of Broiler Chicken Rearing Management in Improving Productivity at CPI Partner Farms

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Abstract

This study aims to evaluate broiler chicken rearing management practices and describe production performance in a partnership farming system. Unlike previous studies that focused on individual management components, this study provides an integrated evaluation of housing, feeding, biosecurity, waste management, marketing systems, and production performance in a broiler partnership farm. The research was conducted at a broiler farm partnered with PT Charoen Pokphand Indonesia (CPI) located in Olaia Village, Aesesa District, Nagekeo Regency, East Nusa Tenggara. A descriptive method with an observational approach was applied. Data were collected through direct observation, interviews, documentation, and secondary data from production records. The variables observed included housing management, feed management, biosecurity, waste management, and marketing systems, as well as production performance indicators such as Feed Conversion Ratio (FCR), mortality rate, and harvest weight. The results showed that the implemented management practices were generally effective in supporting broiler productivity. This was indicated by an FCR value of 1.33, a mortality rate of 3.13%, and an average harvest weight of 1.86 kg per bird at 33 days of age. Proper housing management, ad libitum feeding with balanced nutrition, and the use of supplements contributed to production efficiency and optimal growth performance. However, biosecurity practices were not fully optimized, particularly in sanitation measures, and waste management was still conducted in a simple manner without further processing. The partnership-based marketing system provided market certainty, although farmers had limited control over pricing. Therefore, improvements in biosecurity implementation and waste management are necessary to enhance sustainability and optimize broiler production.

Keywords: *broiler production performance, biosecurity, feed conversion ratio, partnership farming, rearing management*

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1. INTRODUCTION

Broiler chickens represent a leading poultry commodity with a strategic role in fulfilling human animal protein requirements, characterized by their rapid growth rates, high feed conversion efficiency, and capacity to yield meat within a relatively short production cycle. In Indonesia, the broiler farming industry has experienced continuous growth, driven by the escalating public demand for meat consumption. According to 2025 data from Statistics Indonesia (BPS), broiler production in East Nusa Tenggara Province has exhibited a consistent year-over-year increase, reflecting both robust market demand and significant opportunities for livestock enterprise development in the region [1]. These circumstances necessitate the implementation of highly effective and efficient rearing management systems to optimize livestock productivity and ensure the long-term sustainability of broiler farming operations at the farmer level.

From an animal science perspective, successful broiler production is highly dependent on the interaction between genetic factors and the rearing environment. The pertinent environmental parameters encompass housing management, temperature, relative humidity, ventilation, stocking

density, and lighting systems, all of which directly affect bird welfare and health. Suboptimal microclimatic conditions within the poultry house can induce stress, depress feed intake, and subsequently result in elevated mortality rates alongside diminished production performance [2]. Generally, under sound management practices, the ideal mortality rate for broiler flocks is maintained below 5%. Conversely, optimal housing management enhances production efficiency, as evidenced by maximized market weights and robust flock health. Consequently, proper housing management emerges as a critical determinant in actualizing the genetic potential of broiler chickens within intensive production systems.

In addition to housing management, nutritional factors play a critically dominant role in determining the success of broiler farming operations. Feed constitutes the largest expenditure in poultry production, accounting for approximately 60–70% of total operational costs, thereby rendering its efficient utilization a remarkably crucial aspect. Theoretically, both the quality and quantity of the provisioned feed directly impact growth rates, feed conversion efficiency, and overall flock health. The Feed Conversion Ratio (FCR) serves as the primary metric for assessing feed utilization efficiency, where a lower FCR value signifies the birds' optimal capacity to convert feed into body mass. Generally, an acceptable FCR for broilers ranges between 1.5 and 1.8, contingent upon the rearing management practices implemented [3]. Substandard feeding practices, encompassing both nutritional deficiencies and inadequate feed administration, can result in suboptimal growth performance and inflated production costs. Consequently, the application of precise and efficient feed management strategies is pivotal for augmenting the productivity and profitability of broiler enterprises [3].

Beyond production parameters, waste management and marketing strategies constitute pivotal factors in supporting the sustainability of broiler farming enterprises. Poultry waste—comprising litter, excreta, and residual feed—if inadequately managed, can precipitate environmental pollution, generate noxious odors, and act as a proliferation medium for pathogenic microorganisms that potentially compromise flock health [4]. However, with appropriate management, such by-products can be repurposed as organic fertilizer, thereby generating supplementary economic value for the producers. Furthermore, marketing dynamics play a crucial role in dictating the successful distribution of poultry products from farmers to consumers. Within a contract farming framework, marketing channels are generally established by the integrating company; nevertheless, the quality of the final product remains the primary determinant of the selling price and the farmer's profit margins [5]. Consequently, the integration of production management and marketing strategies is imperative to ensure both operational efficiency and the overall sustainability of the broiler production system.

Although various studies have addressed broiler rearing management, the majority of existing literature remains focused on isolated parameters, such as housing or feed management individually. However, in practical field conditions, the success of broiler production is significantly dictated by the simultaneous interdependencies among these diverse management aspects. Based on fieldwork observations conducted at a partner broiler farm of PT Charoen Pokphand Indonesia in Olaia Village, Aesesa Subdistrict, Nagekeo Regency, it was evident that while the applied rearing management adhered to the integrator company's standards, a comprehensive evaluation of the interconnections between housing, feed, waste, and marketing management concerning production performance—specifically the Feed Conversion Ratio (FCR), mortality rates, and market weights—remains limited. Therefore, the novelty of this study lies in its analytical approach, which comprehensively integrates these four management aspects utilizing field-based data within a contract farming framework in the East Nusa Tenggara region. Furthermore, this research offers a contextual contribution by being conducted in a region characterized by environmental conditions that are distinctly different from those of conventional poultry production hubs in Indonesia. Consequently, this study aims to analyze the relationships between housing, feed, waste, and marketing management and their collective impact on broiler production

performance within a contract farming system, ultimately seeking to enhance operational efficiency and the sustainability of the livestock enterprise.

2. METHOD

This study was based on fieldwork observations conducted at a broiler farm partnered with PT Charoen Pokphand Indonesia, located in Bo'anio, Olaia Village, Aesesa Subdistrict, Nagekeo Regency, East Nusa Tenggara Province. The site was purposively selected because the farm operates under a contract farming system implementing standardized rearing management, thereby providing a highly relevant model for analyzing broiler production performance. The fieldwork was carried out from November 4 to December 10, 2026, focusing on the direct observation of the entire broiler rearing management sequence, from pre-placement house preparation to the final harvest. This study employed a descriptive observational design to systematically delineate the on-farm rearing management conditions based on empirical observations, without applying any experimental treatments to the subjects. The observational unit comprised a single broiler house owned by the partner farmer, housing an initial flock of 2,500 Day-Old Chicks (DOCs), which were monitored throughout a complete rearing cycle until harvest. The observations encompassed the entirety of the operational procedures, including house preparation, daily flock management, health protocols, and the harvesting process.

Data collection for this study was conducted using multiple complementary techniques to acquire accurate and comprehensive information. Primary data were obtained through direct on-site observations of broiler rearing activities, encompassing the physical conditions of the poultry house, feeding and watering systems, temperature and ventilation management, and flock health interventions throughout the rearing period. Additionally, in-depth interviews were conducted with the farm owner and personnel to elicit information regarding the implementation of management practices, operational constraints encountered, and strategies adopted to optimize productivity. Documentation served as supplementary data, comprising activity logs, photographic evidence of the housing conditions, and overall on-farm operational situations. Furthermore, secondary data were extracted from the farm's production records—specifically initial flock size, feed consumption, mortality rates, and market weights—which were utilized to substantiate the analysis of broiler production performance.

The variables observed in this study encompassed key aspects of broiler rearing management, specifically housing, feeding, and waste management, alongside the marketing system within the contract farming framework. Housing management was evaluated based on the physical conditions of the poultry house, ventilation, temperature, relative humidity, and stocking density. Concurrently, feeding management variables included feed types, feeding frequencies, and the feed distribution system. Waste management was assessed through the handling protocols for litter and residual feed, while marketing aspects were examined based on the sales mechanisms established under the contract farming agreement. Furthermore, the analyzed production performance indicators comprised the Feed Conversion Ratio (FCR), mortality rates, and final market weights of the broilers. Data analysis was conducted descriptively by juxtaposing the empirical field conditions against prevailing standard broiler rearing guidelines. The findings were subsequently interpreted to elucidate the interrelationships between the implemented management practices and the achieved production outcomes.

3. RESULT AND DISCUSSION

3.1. Broiler Rearing Management

Broiler rearing management constitutes an integrated system encompassing various critical aspects, including housing management, feed administration, health control via biosecurity, waste management, and product marketing. These components are fundamentally interdependent and collectively determine the success of broiler production. Based on the rearing outcomes at the partner

farm of PT Charoen Pokphand Indonesia (CPI) in Mbay, the recorded production performance data indicated an initial flock of 2,500 birds, with 2,376 birds harvested, yielding a mortality rate of 3.12%. Furthermore, the data demonstrated a cumulative feed consumption of 2.44 kg/bird, an average daily gain (ADG) of 0.055 kg/bird/day, an average market weight of 1.86 kg/bird at 33 days of age, and a Feed Conversion Ratio (FCR) of 1.33. These metrics demonstrate that the implemented rearing management system operated effectively, successfully optimizing the growth and production efficiency of the broilers. This aligns with the findings of Maulana et al. [6], who posited that the performance of modern broilers typically ranges between market weights of 1.7 and 2.0 kg/bird with FCR values of 1.2 to 1.5. Additionally, this is corroborated by Zebua et al. [7], who reported that an optimal mortality rate for broiler flocks is maintained below 5%.

Table 1. Summary of broiler production performance at the partner farm of PT Charoen Pokphand Indonesia (CPI) in Mbay during one rearing cycle.

Parameter	Value	Unit
Initial population	2.500	Birds
Dead birds	78	Birds
Culled birds	46	Birds
Harvested birds	2.376	Birds
Mortality rate	3,13	%
Initial DOC weight	0,045	Kg/Day
Final market weight	1,86	Kg/Bird
Feed consumption	2,44	Kg
Average Daily Gain (ADG)	0,055	Kg/Bird/Day
Rearing period	33	Days
Total feed consumption	5.900	Kg
Total live weight	4.419,36	Kg
Feed Conversion Ratio	1,33	%

*DOC (Day Old Chicken)

3.1.1 Housing Management

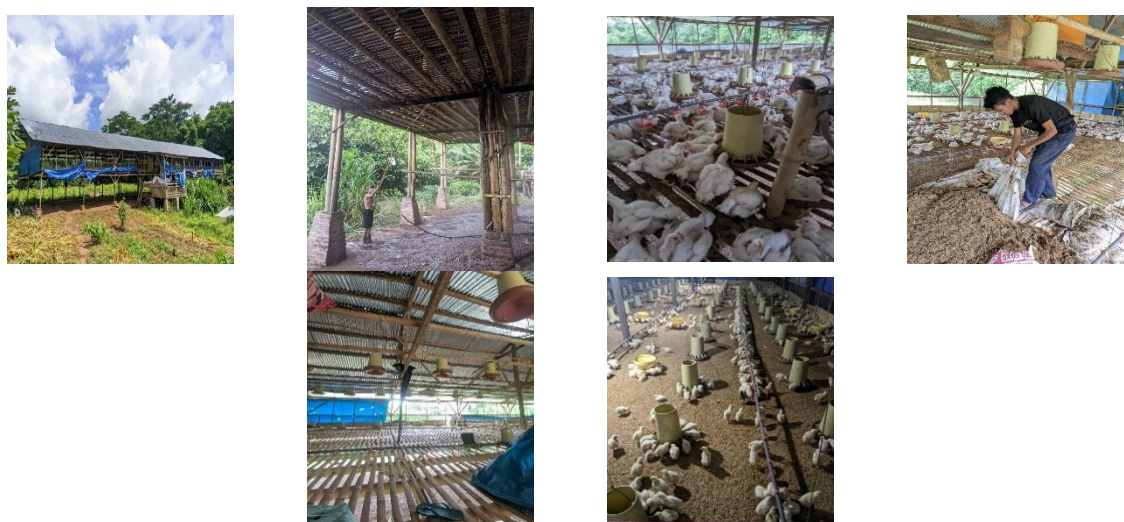


Figure 1. Broiler housing management, encompassing the exterior condition of the poultry house, cleaning and sanitation prior to the placement of Day-Old Chicks (DOC), the bamboo slatted flooring system, the application of rice husk bedding, spatial partitioning according to bird age, and litter management throughout the rearing period up to 28 days of age.

In addition to ventilation systems, the physical conditions of the poultry house—specifically litter utilization and the regulation of stocking density—play a pivotal role in supporting broiler performance. Based on field observations (Figure 1), the use of rice husks as flooring litter effectively maintained a dry microenvironment by absorbing moisture from the excreta. Optimal litter conditions not only enhance bird welfare but also significantly influence flock health, particularly by preventing leg abnormalities and mitigating disease risks. Consequently, this promotes optimal behavioral activities, ensuring that feed intake remains unhindered and growth trajectories are stabilized, as evidenced in Table 2 by an Average Daily Gain (ADG) of 0.055 kg/bird/day. This observation is in accordance with Ramadhan et al. [8], who asserted that proficient litter management enhances broiler welfare and health, thereby bolstering overarching production performance.

Furthermore, the regulation of stocking density through age-appropriate partitioning of the poultry house constitutes an essential component of housing management. An optimal stocking density provides adequate space allowance, thereby mitigating competition among birds for access to feed and water resources. This condition facilitates a more equitable feed intake, subsequently promoting higher flock uniformity [9]. Conversely, excessive stocking density can precipitate elevated intra-house temperatures and relative humidity, which sequentially depresses feed intake and induces physiological stress, thereby potentially exacerbating mortality rates. Consequently, the strategic management of both litter and stocking density, as integral components of housing management, plays an imperative role in sustaining and optimizing the production efficiency of broiler chickens.

3.1.2 Feed Management

Table 2. Nutritional composition of commercial broiler feed from PT Charoen Pokphand Indonesia.

Nutrient Content	Feed Type		
	S00	S11	S12
Moisture	Maks 13.00%	Maks 14.00%	Maks 13.00%
Crude Protein	Min 22.00%	Min 20.00%	Min 19.00%
Crude Fat	Min 4.00%	Min 5.00%	Min 4.00%
Crude Fiber	Maks 5.00%	Maks 5.00%	Maks 5.00%
Ash	Maks 9.00%	Maks 8.00%	Maks 9.00%
Calcium	0.70% - 1.20%	0.80% - 1.10%	0.60% - 1.10%
Phosphorus	Min 0.50%	Min 0.50%	Min 0.45%
Total Aflatoxin	Maks 40 µg/kg	Maks 50 µg/kg	Maks 50 µg/kg
Lysine	Min 1.30%	Min 1.20%	Min 1.05%
Methionine	Min 0.50%	Min 0.45%	Min 0.40%
Methionine + Cystine		Min 0.80%	
Tryptophan		Min 0.19%	
Threonine		Min 0.75%	

Feed management at the partner broiler farm of PT Charoen Pokphand Indonesia (CPI) in Mbay is systematically implemented utilizing commercial feed formulated to meet the nutritional requirements of the birds at each respective growth phase. Feeding is administered ad libitum, ensuring continuous feed availability in the feeders, thereby allowing the birds to consume according to their physiological demands. This system enables the broilers to achieve optimal growth as feed intake is unrestricted, maximizing the fulfillment of energy and nutritional requirements essential for body tissue formation. Furthermore, ad libitum feeding contributes to enhanced production efficiency, provided that feed quality and environmental housing conditions are meticulously maintained [10]. As presented in Table 2, the utilized feed comprised S00 (pre-starter), S11 (starter), and S12 (finisher), featuring a crude protein content that progressively declined from 22% in the pre-starter phase to 20% in the starter phase and 19% in the finisher phase. This dietary adjustment reflects the shifting nutritional requirements corresponding to the growth phases; the initial phase necessitates high dietary protein for tissue accretion, whereas the final phase is directed more toward the efficiency of body weight gain [11]. Correlating this with the results in Table 1, the aforementioned nutritional composition significantly

influenced broiler production performance, as evidenced by a cumulative feed consumption of 2.44 kg/bird and a Feed Conversion Ratio (FCR) of 1.33. This FCR value is classified as highly efficient and remains well within the standard parameter range for modern broilers, specifically 1.2–1.5 [12], [13]. These findings are in agreement with Tajudin et al. [14], who asserted that dietary nutritional balance, particularly concerning protein and energy, critically impacts feed conversion efficiency and broiler growth. Consequently, the feed formulation detailed in Table 2 is proven to optimally support the production performance presented in Table 1, aligning cohesively with established theoretical frameworks and prior empirical studies.

Beyond crude protein content, the balance of essential amino acids, particularly lysine and methionine, as delineated in Table 2, plays a critical role in supporting broiler production performance. Lysine functions primarily in muscle tissue accretion, whereas methionine is integral to protein synthesis and the enhancement of feed utilization efficiency. The balanced availability of these amino acids directly influences both feed intake and conversion efficiency, as evidenced in Table 1 by a cumulative feed consumption of 2.44 kg/bird and a Feed Conversion Ratio (FCR) of 1.33. These metrics indicate that the dietary nutrients were optimally assimilated for growth. These findings align with Widianingrum et al. [15], who posited that the amino acid balance within the diet is a decisive determinant of feed conversion efficiency and overall broiler growth.

Proficient feed utilization is further manifested in the body weight gain of the broilers. As indicated in Table 1, the recorded Average Daily Gain (ADG) reached 0.055 kg/bird/day, equivalent to 55 grams/bird/day, demonstrating that the birds underwent optimal growth. When correlated with the nutritional composition outlined in Table 2, the equilibrium among protein, energy, and essential amino acids effectively facilitated physiological tissue accretion. This synergy contributed to an ultimate market weight of 1.86 kg/bird at 33 days of age, categorizing it as robust production performance. These outcomes align consistently with modern broiler performance standards, which prescribe an ADG of 50–60 grams/bird/day and a final market weight ranging from 1.7 to 2.0 kg at 33 days of age [16]. Moreover, Sanjaya [17] articulated that dietary nutritional balance profoundly influences growth velocity and final body weight attainment in broilers. Consequently, the adequacy of the nutritional formulation presented in Table 2 is empirically proven to foster the optimal growth trajectories demonstrated in Table 1.

Beyond individual growth metrics, the overarching success of the rearing management is further reflected in the total production yield and mortality rates of the broiler flock. As delineated in Table 1, the total live weight yielded reached 4,419.36 kg from a harvested flock of 2,376 birds, indicating that the vast majority of the population maintained robust growth and viability throughout the entire rearing cycle. The recorded mortality rate of 3.13% is classified as low and remains well within the acceptable tolerance limits for commercial broiler rearing, which is typically maintained below 5% [18]. When correlated with the nutritional composition detailed in Table 2, it is evident that superior feed quality and optimal nutrient equilibrium play a pivotal role in preserving flock health, thereby suppressing mortality rates. These outcomes corroborate prior research asserting that proficient feed management—particularly concerning nutritional integrity and the mitigation of contaminants such as aflatoxins—can significantly bolster the immunological resilience of the birds and concomitantly reduce mortality rates [19].

Consequently, the correlation between the feed quality outlined in Table 2 and the resulting production performance detailed in Table 1 demonstrates that the implemented management system optimally supports broiler productivity while mitigating economic losses attributed to flock mortality. Thus, the successful production of broiler chickens is not exclusively contingent upon feed quality; rather, it is concurrently underpinned by synergistic factors such as flock health and environmental control. Therefore, supplementary interventions—encompassing the administration of nutritional

supplements and therapeutic agents, alongside the enforcement of rigorous sanitation protocols—are imperative to sustain the physiological homeostasis of the birds throughout the rearing period.

In summary, the overarching outcomes of the broiler rearing process demonstrate that the administration of a well-balanced nutritional diet optimally underpins production performance. The precise alignment of nutrient profiles with specific growth phases significantly influences feed intake, feed conversion efficiency, and cumulative body weight gain. This is directly evidenced by a Feed Conversion Ratio (FCR) of 1.33, an Average Daily Gain (ADG) of 0.055 kg/bird/day, and a final market weight of 1.86 kg/bird at 33 days of age, all of which fall squarely within the standard performance parameters for modern broilers [2], [20]. Furthermore, the relatively low mortality rate indicates that the general rearing conditions and management practices were executed highly effectively.

Table 3. Types of therapeutic agents and supplements, their functions, and administration methods.

Therapeutic Agent / Supplement	Function / Role	Administration Method
Biogreen	- Mitigates adverse effects resulting from treatments with sulfa antibiotics, coccidiostats, and similar agents. - Acts as an anti-stress agent. - Treats digestive disorders induced by overfeeding, toxicosis, or high-nitrogen diets. - Alleviates decreased appetite, asthenia, and constipation. - Addresses fluid deficiency	Dissolved in drinking water and administered alternately according to the daily schedule.
Zagrosol Aminogen	- Stimulates growth and enhances overall flock performance. - Improves the Feed Conversion Ratio (FCR).	Administered via drinking water according to a daily rotational schedule.
Organic Green Culture	- Accelerates growth and improves feed efficiency. - Prevents intestinal infections and diarrhea. - Enhances meat quality. - Reduces ammonia levels and noxious odors from excreta.	Administered via drinking water following a daily rotational scheme.
Bromoquad-10 (Disinfectant)	Serves as a disinfectant to clean administration vessels, preventing harmful microbial contamination.	Utilized for washing vats/containers prior to mixing supplements or therapeutic agents.

3.1.3 Waste Management

Based on observational findings, waste management at the partner broiler farm of PT Charoen Pokphand Indonesia (CPI) in Mbay is conducted manually, specifically by collecting and distributing spent litter and poultry excreta to designated areas surrounding the poultry house. The waste is utilized directly as organic fertilizer without undergoing further processing, such as fermentation or composting. This practice indicates that although waste utilization is occurring, it remains rudimentary and is suboptimally managed. Poultry manure directly impacts crop production and food security by providing essential macronutrients (N, P, and K), secondary nutrients (S, Mg, and Ca), and micronutrients (Zn, Pb, B, Cu, Cl, Fe, Mo, Ni, Mn, Co, Si, Cr) upon application [21]. However, if applied without prior treatment, the unstabilized organic matter and the presence of pathogenic microorganisms possess the potential to generate adverse impacts on both the environment and public health. Furthermore, poultry excreta emits noxious odors that can compromise the health of surrounding communities and

consequently depress livestock productivity [22]. From an enterprise management perspective, this condition also suggests that the economic potential of the waste has not been maximally exploited; through proper composting or fermentation processes, the waste can be converted into higher-quality organic fertilizer with greater market value and safer applicability for agricultural lands. According to Maitimu et al. [23], inadequately treated livestock waste can precipitate soil pollution, noxious odors, and an elevated risk of pathogenic microorganism dissemination into the surrounding environment. This situation highlights that despite its current utilization, waste management practices require significant improvement to ensure environmental sustainability and biosecurity.

3.1.4 Biosecurity

The implementation of biosecurity protocols at the partner broiler farm of PT Charoen Pokphand Indonesia (CPI) in Mbay indicates that disease prevention efforts remain suboptimally executed. Based on observational findings, the implemented measures were primarily restricted to controlling access to the poultry house, lacking the support of adequate sanitation infrastructure such as handwashing stations, disinfectant footbaths, and routine disinfectant spraying. This deficiency inherently elevates the risk of pathogenic agent introduction into the housing environment via human vectors, equipment, and vehicles utilized during daily operations. Theoretically, a robust biosecurity framework comprises three fundamental components: isolation, sanitation, and traffic control. These three elements must be implemented synergistically to mitigate the risk of disease dissemination within the flock. According to Noywuli et al. [24], the incomplete execution of biosecurity protocols, particularly concerning sanitation and traffic control, significantly amplifies the probability of pathogenic microorganism contamination within the microenvironment of the poultry house. This is corroborated by Suriansyah et al. [25], who reported that inadequate compliance with routine disinfection and personal sanitation practices correlates directly with an increased incidence of disease and subsequently diminished broiler production performance. Furthermore, Saputra et al. [26] asserted that stringent biosecurity implementation is capable of reducing mortality rates, enhancing feed efficiency, and sustaining long-term production performance stability.

3.2 Marketing Management

Marketing management at the partner broiler farm of PT Charoen Pokphand Indonesia (CPI) in Mbay, Nagekeo Regency, is executed through an integrated contract farming system, wherein the entire production yield is marketed by the integrator company. Under this framework, the farmer does not engage in independent marketing; rather, the entire sales process is centrally controlled by the company. Prospective buyers are mandated to pre-register via a dedicated application provided by the integrator, ensuring that the transaction process is systematically organized and strictly monitored. Upon the scheduled harvest, these registered buyers proceed directly to the farm premises to collect the broilers in accordance with predetermined quantities and specified body weights. The implemented marketing mechanism is categorized as an indirect marketing channel, wherein product distribution necessitates the involvement of intermediaries or distributors before reaching the end consumers. This pattern typically emerges within long-term relationships between farmers and aggregators, cultivated upon mutual trust in commercial transactions [27]. The primary advantage of this system is that it affords farmers marketing convenience and guaranteed market absorption of their yield, thereby minimizing the financial risk of delayed payments. Nevertheless, the farmers possess limited bargaining power in determining the selling price, as both the pricing and the harvesting schedule are exclusively dictated by the integrator company, contingent upon prevailing market dynamics and the achieved production performance [28].

Based on the production outcomes, the broilers were harvested at 33 days of age, achieving an average body weight of 1.86 kg per bird. From an initial flock of 2,500 birds, 2,376 birds were

successfully harvested, recording a mortality rate of 3.12%, which remains well within the normal tolerance limits for commercial broiler rearing. The total live weight yielded at harvest reached 4,419.36 kg, indicating a considerably high production volume within a single rearing cycle. The harvested broilers were marketed as live birds at a selling price of IDR 25,000 per kilogram. The profit-sharing mechanism within this contract farming framework allocates 20% of the total sales revenue to the farmer, while the remainder is retained by the integrator company as the provider of production inputs and the manager of marketing operations. This system guarantees income security for the farmers, although, conversely, they lack absolute control over market price fluctuations. According to [29], fluctuations in the selling price of broilers profoundly impact farmers' income levels; therefore, the contract farming system serves as a viable alternative to mitigate the risks associated with price volatility. Overall, the marketing management implemented at the CPI Mbay partner farm has operated in an integrated and efficient manner through a digitally facilitated contract system and direct distribution channels. Ultimately, marketing success is not solely dictated by the distribution network but is also heavily influenced by production performance metrics, such as mortality rates, final market weights, and the total live weight yielded during the rearing period.

4. CONCLUSION

Based on the research findings, it can be concluded that the broiler rearing management implemented at the partner farm of PT Charoen Pokphand Indonesia (CPI) in Mbay has generally operated effectively and optimally underpins flock productivity. This is directly evidenced by the robust production performance metrics achieved, notably a Feed Conversion Ratio (FCR) of 1.33, a relatively low mortality rate of $\pm 3.13\%$, and an average final market weight of 1.86 kg/bird at 33 days of age. These accomplishments indicate that the synergistic application of housing management, feed management, strategic supplementation, and the integrated contract farming system has been highly efficacious in elevating overarching broiler productivity.

This study makes a significant scientific contribution by presenting a holistic evaluation of various rearing management aspects—encompassing housing, feed, biosecurity, waste, and marketing management—alongside their correlation with production performance within a contract broiler farming framework. This approach provides a highly comprehensive perspective on the implementation of rearing management practices at broiler farms in the East Nusa Tenggara region, an area that remains relatively underrepresented in prior empirical literature.

On a practical level, the findings of this study serve as an evaluative framework for farmers to enhance the implementation of biosecurity measures and waste management practices, thereby supporting flock health and ensuring the long-term sustainability of the enterprise. Furthermore, for the integrator company, these insights can be leveraged as a foundational basis to fortify technical guidance and extension services provided to partner farmers, particularly concerning strict adherence to sanitation, biosecurity protocols, and waste management practices in accordance with standard operating procedures.

It is recommended that subsequent studies incorporate a broader sample of partner farms exhibiting diverse characteristics, utilize longitudinal data spanning multiple rearing cycles, and employ rigorous statistical analyses to more profoundly evaluate the factors dictating broiler production performance. Furthermore, economic dimensions, animal welfare parameters, and environmental sustainability warrant thorough investigation to formulate highly comprehensive recommendations for the strategic advancement of commercial broiler farming enterprises.

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