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Market orientation and distribution strategies in poultry agribusiness: Evidence from chicken layer farms in Nueva Ecija

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ABSTRACT

This study investigates the strategic market orientation and distribution strategies among registered chicken layer farms in Nueva Ecija, Philippines, amid challenges involving supply-demand gaps, market fluctuations, and evolving consumer behavior. It aims to examine how these farms align their internal strategies with external market dynamics. A descriptive-evaluative quantitative approach was applied. Data were collected from all ten registered chicken layer farms across six municipalities using a structured questionnaire based on the Market Orientation Framework. Descriptive statistics and weighted mean scoring were used to analyze four dimensions: customer orientation, competitor orientation, interfunctional coordination, and responsiveness. Results revealed a persistent supply-demand gap of over 80%, worsened by seasonality, disease outbreaks, and logistical constraints. Marketing remains heavily intermediary-driven, with minimal digital platform adoption. While farms show basic responsiveness to market signals, most lack formal systems for feedback, competitor monitoring, and internal coordination. Improving marketing performance requires a strategic shift toward structured, data-informed market orientation and diversified distribution. The study highlights the need for stronger policy support, targeted training, and the integration of digital tools to improve efficiency, strengthen competitiveness, and enhance long-term sustainability in poultry agribusiness.

Contribution/Originality: This research examined the market orientation and distribution strategies of chicken layer farms in Nueva Ecija, Philippines. The study describes the market environment, assesses marketing channel utilization, and evaluates market orientation levels, offering strategic recommendations to enhance agribusiness performance.

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1. INTRODUCTION

The chicken layer industry has become a vital agricultural sector in the Philippines, providing a key source of protein and rural livelihoods. According to the Philippine Statistics Authority, as cited by Salvia and Valderama (2021), chicken egg production in the Philippines reached approximately 605.79 thousand metric tons in 2020, showing a 3.9% increase from the previous year. The province of Nueva Ecija, dubbed an abundant agricultural area in Central Luzon, is a key player in egg production and contributes significantly to the country's national supply (Tanquilut et al., 2020). Relatively, the challenge of marketing the eggs produced in the province is an evident issue, as farmers have limited knowledge and experience in distribution management and marketing.

Changing demand, unstable prices, and difficulties in getting products to the right markets are common external factors faced by the poultry industry in Nueva Ecija. The ASF outbreak affected poultry production, as many swine farmers shifted to egg production, leading to a drop in farmgate egg prices by 2020 (United Broilers Raisers Association [UBRA], as cited in Veterinaria Digital (2022)). Additionally, the increase in feed prices and the occurrence of poultry diseases affected egg production, highlighting the unpredictability of the egg market. Many farmers still have a hard time finding better ways to sell their eggs. Most small-scale producers depend on middlemen, which often means they earn less than they should from their own products.

Based on existing studies related to egg production, many developing countries follow a similar practice where egg producers sell through different channels, whether directly from their farms, to wholesalers, or to retailers. This greatly impacts small-scale farmers, who have limited bargaining power within the supply chain (Beesabathuni, Lingala, & Kraemer, 2018). The current market environment and practices highlight the importance of strategic marketing decisions and effective channel utilization to remain competitive and maintain a profitable business.

Given these circumstances, adopting a strong market orientation has become increasingly important in the poultry industry. Based on the definition, market orientation refers to how well a business understands its customers and uses that understanding to meet their needs and deliver real value (Butkouskaya & Llonch-Andreu, 2024). Many studies in agribusiness have shown that when farmers or agribusinesses truly understand and respond to their markets, they tend to perform better and adapt more easily to changes (Corchuelo Martínez-Azúa, Dias, & Sama-Berrocal, 2025). To supply what the market actually needs and avoid losses, poultry farms must pay close attention to what their customers want and fully understand the market environment, including the competition. Despite this, most available studies focus on large-scale agricultural enterprises, with limited focus on small-scale poultry layer farming (Mappigau & Amar, 2019).

Despite their vital role in egg production, small poultry farms in Nueva Ecija remain underexamined in terms of how they understand and apply market strategies, from gathering market information to adjusting their distribution efforts. This gap highlights the importance of closely studying the marketing practices of local chicken layer farms, as enhancing their market orientation and channel strategies could enable them to respond more effectively to unpredictable demand and increasing competition.

Therefore, this study on market orientation and distribution strategies in poultry agribusiness aims to understand how chicken layer farms in Nueva Ecija align their market environment, distribution channels, and internal marketing practices to improve their performance and resilience in a competitive market. Specifically, the study examines how chicken layer farms in Nueva Ecija respond to their market environment by analyzing demand, supply, and existing gaps. It also explores how these farms distribute their products through various channels, including direct selling, wholesale, institutional, and online platforms. Additionally, the study investigates the degree of their market orientation, focusing on customer understanding, awareness of competitors, coordination within their operations, and their ability to adapt. Collectively, these insights aim to develop practical strategies to enhance the marketing performance of local poultry farms in Nueva Ecija.

2. MATERIALS AND METHODS

In order to better understand how chicken layer farms in Nueva Ecija apply market orientation and utilize different marketing channels, the study employed a descriptive-evaluative quantitative design. This method was chosen because it is widely used in agribusiness and strategic research to examine the marketing practices and market awareness of the chicken layer industry in the province (Leitão, Paiva, & Thomé, 2024).

The study was guided by the Market Orientation Framework, which comprises four key areas: customer orientation, competitor awareness, internal coordination, and responsiveness. This framework is often used to assess marketing behavior in agricultural enterprises and small businesses (Corchuelo Martínez-Azúa et al., 2025).

The respondents of the research were ten (10) registered commercial chicken layer farms in Nueva Ecija, verified through the official list provided by the Provincial Veterinary Office and confirmed by the Department of Agriculture – Regional Field Office III (DA RFO III).

These registered farms are located across six municipalities in Nueva Ecija, namely: Cabiao, San Isidro, Peñaranda, San Leonardo, Natividad, and Talavera. Data collection was conducted in 2024 using a complete enumeration method, allowing the study to capture all relevant respondents and minimize potential sampling bias (Food and Agriculture Organization, 2020).

Primary data were collected using a structured questionnaire that included Likert-scale and multiple-choice items, adapted from multiple validated instruments. The tool was reviewed by agricultural marketing experts to ensure relevance and clarity. Descriptive statistics and weighted mean scores were used to analyze the data. Inferential statistics were not applied, as the study focused on describing trends rather than testing hypotheses. The findings are specific to registered farms and do not generalize to informal producers outside the scope of the study.

3. RESULTS AND DISCUSSION

3.1. Market Environment of the Chicken Layering Industry

3.1.1. Demand for Table Eggs

This study analyzed the demand environment for table eggs in Nueva Ecija, focusing on the production and market participation of the ten (10) registered chicken layer farms identified from the official list of the Provincial Veterinary Office. These farms represent the formally recognized segment of the province's commercial egg supply chain. Backyard and unregistered producers, while likely contributing to overall egg output, were excluded from the study's data collection and analysis.

Based on data from the Philippine Statistics Authority (2022), Nueva Ecija had a population of approximately 2.31 million. According to national averages, annual per capita egg consumption in the Philippines was 5.27 kilograms per

person, or about 109 eggs per year (Food and Agriculture Organization, 2021). Using this figure, the total annual egg demand in the province is estimated at 221.12 million eggs, or approximately 18.4 million eggs per month. This estimate was validated by interviews with egg retailers, who reported that household consumption habits and purchase frequencies closely align with the national norm.

However, field data from the 10 registered farms show that their combined production capacity averages only 3.4 to 3.6 million eggs per month, covering roughly 18% of the estimated monthly demand in the province. The situation is further highlighted in Table 1, which compares monthly supply and demand based solely on these farms' production. The gap exceeds 80% across all months and peaks during high-demand seasons such as August and September.

Table 1. 2022 comparative average monthly supply and demand for eggs in local and regional markets (Registered farms only).

Month	Local supply (pcs)	Local demand* (pcs)	Local % gap	Regional supply (pcs)	Regional demand** (pcs)	Regional % gap
January	3,442,500	18,400,000	81.29%	68,850	99,000,000	99.93%
February	3,523,500	18,400,000	80.84%	70,470	99,000,000	99.93%
March	3,321,000	18,400,000	81.95%	66,420	99,000,000	99.93%
April	3,118,500	16,800,000	81.44%	68,850	88,000,000	99.92%
May	3,159,000	16,800,000	81.21%	64,800	88,000,000	99.93%
June	3,483,000	20,200,000	82.76%	72,090	110,000,000	99.93%
July	3,442,500	20,200,000	82.95%	70,470	110,000,000	99.94%
August	3,523,500	21,800,000	83.84%	68,850	120,000,000	99.94%
September	3,564,000	21,800,000	83.64%	71,280	120,000,000	99.94%
October	3,523,500	18,400,000	80.84%	72,090	99,000,000	99.93%
November	3,604,500	18,400,000	80.41%	68,850	99,000,000	99.93%
December	3,564,000	18,400,000	80.64%	70,470	99,000,000	99.93%

Note: * Based on 2.31M population × 109 eggs/Year ÷ 12.
** Provided for comparison; only one farm serves regional markets.

While only one farm caters to buyers outside the province, regional demand is included for comparison. Monthly demand across the region exceeds 99 million eggs, yet the registered farms of Nueva Ecija contribute less than 0.1%, highlighting their limited market reach.

To better understand what drives consumption patterns locally, the study also assessed the perceived factors influencing egg demand using Kendall's coefficient of concordance (W = 0.60), indicating moderate agreement among the 10 farmers. As shown in Table 2, season of the year emerged as the top-ranked factor, reinforcing the observed demand peaks from August through December.

Table 2. Factors influencing the demand for eggs in Nueva Ecija.

Factors	Mean rank	Final rank
Season of the year	1.63	1st
Trader-related issues	2.25	2nd
Household income	3.38	3rd
Price of egg	3.13	4th
Quality of egg	4.63	5th

Note: Diagnostic: Kendall's W = 0.60; Chi-square = 23.92; df = 4; n = 10 (Registered farms).

Beyond seasonality, trader-related concerns, such as delayed payments or unstable purchase volumes, were cited as affecting consumer availability and farm-level planning. Household income was the third most influential factor, aligning with poverty data from the Department of Social Welfare and Development Field Office III (2022), which reported that Nueva Ecija had the highest number of poor households in Central Luzon, totaling 76,691, or 28.35% of the region's identified poor households.

For a family of six, regular egg consumption could cost up to ₱1,800 per month, posing affordability issues despite eggs being a staple food. While egg price and quality ranked lower, they still reflect changing consumer preferences, particularly among higher-income or urban households who are beginning to favor "value-added" or branded egg products. However, for the majority of rural consumers, pricing remains the top consideration.

The ten registered chicken layer farms in Nueva Ecija play an essential role in supplying the province's table egg needs but are currently unable to meet more than one-fifth of the estimated monthly demand. The shortfall, which exceeds 80%, is especially pronounced during seasonal spikes in consumption.

These findings demonstrate the urgent need for strategic interventions in production planning, market coordination, and consumer-oriented marketing strategies to support both producers and end-users more effectively.

3.1.2. Supply Capacity of Registered Chicken Layer Farms in Nueva Ecija

The supply capacity of chicken layer farms in Nueva Ecija, focusing exclusively on the ten (10) registered farms listed by the Department of Agriculture–Nueva Ecija, reveals limited flexibility in adjusting to seasonal market fluctuations.

Monthly egg output remains generally constant, averaging 3.1 to 3.6 million eggs, despite observable peaks in consumer demand during certain months. This suggests that egg production in these farms is not demand-driven but instead shaped by biological, environmental, and infrastructural constraints.

As shown in Figure 1, the lowest production months were recorded during the summer season March (3.32M), April (3.12M), and May (3.16M). These drops correspond with increased heat stress, which has been shown to significantly reduce feed intake and egg production in laying hens (Kim, Ryu, Lee, Cho, & Kang, 2024).

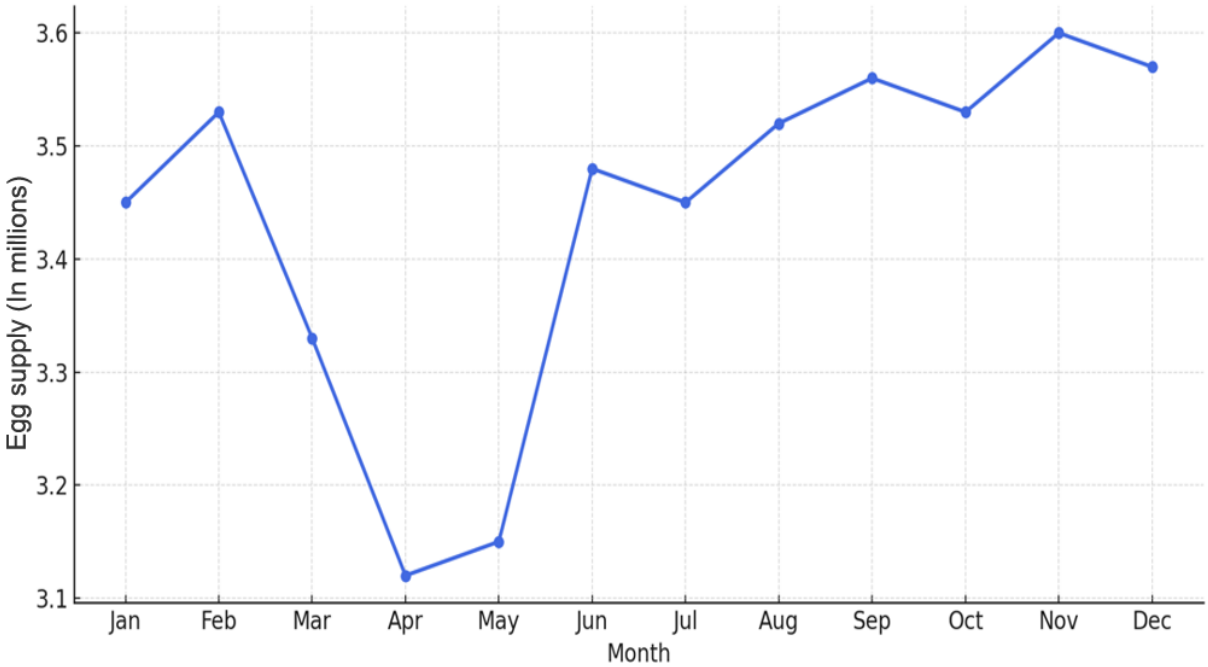

Figure 1. Monthly egg supply from registered chicken layer farms in Nueva Ecija.

Beyond seasonal variation, deeper insight into production capacity was gathered by analyzing internal and external factors affecting supply. Internal factors ranked by farmers using a modified Likert-Kendall scale are shown in Table 3. Feed quality and nutrition emerged as the most significant constraints, followed by stress, chick quality, sanitation, and farm facilities.

Table 3. Internal factors affecting the egg production of chicken layers.

Internal factors	Mean rank	Final rank
Quality of feeds/Nutrition	1.16	1st
Stress	1.20	2nd
Quality of chicks	2.25	3rd
Sanitation	3.20	4th
Quality of facilities	3.50	5th

Note: Kendall's W = 0.74; χ^2 = 29.68; df = 4; m = 10.

Feed formulation in the Philippines heavily relies on locally available ingredients, including corn, rice bran, fishmeal, and copra meal. However, rising input costs have led some feed suppliers to reformulate feeds, which negatively impacts egg-laying performance (Pelonia, 2025).

Stress from high temperatures, noise, and handling was cited as another critical constraint, particularly in farms using open-sided poultry houses. Chick quality, although improving, remains inconsistent, especially for farms managing their own breeder operations. Sanitation and infrastructure, while less immediate, contribute to chronic issues such as water contamination and inefficient airflow, both of which reduce production potential (Ravić et al., 2024).

The study also explored external factors limiting supply capacity (Table 4). Consistent with the internal findings, temperature and weather variability ranked highest, particularly in relation to climate change's effects on ventilation and heat control.

Table 4. External factors affecting the egg production of chicken layers.

External factors	Mean rank	Final rank
Temperature/Weather	0.88	1st
Diseases/Parasites	1.78	2nd
Logistics	1.91	3rd
Natural calamities	3.07	4th
Regulations	3.63	5th

Note: Kendall's W = 0.74; χ^2 = 29.44; df = 4; m = 10.

Layer houses in Nueva Ecija still largely rely on traditional, non-automated systems, leaving them vulnerable to heat stress even during short-term weather shifts. Only a few farms use tunnel-ventilated housing, and even these encounter operational difficulties during high-heat months (Ancog et al., 2023).

Biosecurity remains a top concern, with many farmers citing the 2017 Avian Influenza outbreak in Nueva Ecija as a critical turning point. This event led to culling, public panic, and provincial restrictions on poultry movement, weakening production capacity and investment confidence. Disease control remains under-resourced, especially in small and medium-scale farms (Salvador et al., 2020).

Other key constraints include logistics and land zoning issues, with some farmers reporting de facto eviction from established farms due to urban encroachment and lack of local policies protecting agricultural zones. The effects of natural calamities, such as Typhoon Karding in 2022, were also noted, with farmers from Cabiao and Peñaranda confirming infrastructure losses and capital depletion that permanently reduced their egg output.

Regulatory requirements ranked last among the external factors affecting egg production in chicken layer farms. Based on interviews with the enterprises, these challenges are related to post-pandemic support and LGU permitting, which discourage them from starting or rebuilding their poultry businesses (González - Fernández, Tortora Perez, Garcia Flores, Aguilar Setien, & Ramirez Alvarez, 2020).

Despite stable production levels, registered chicken layer farms in Nueva Ecija continue to operate below their full potential. This is hindered by multiple challenges such as extreme temperatures, disease threats, poor feed quality, and limited regulatory support, all of which make them vulnerable and less competitive in the market environment.

Based on the data gathered, these farms collectively produce an average of 3.4 million eggs each month, but their output lacks adaptability. Therefore, well-coordinated solutions are needed, ranging from improved land use policies and stronger infrastructure to affordable, high-quality feeds and more reliable disease prevention measures (Mohamed, 2024).

3.1.3. Demand and Supply Gap in the Chicken Layering Industry of Nueva Ecija

As shown in Table 1, there remains a wide and persistent gap between supply and demand in Nueva Ecija. The ten registered chicken layer farms collectively produce only around 3.1 to 3.6 million eggs each month, while local demand can reach as high as 21.8 million, especially during peak months like August to December. This means that, on average, more than 80% of the province's egg demand isn't being met, leaving a significant shortfall that continues throughout the year.

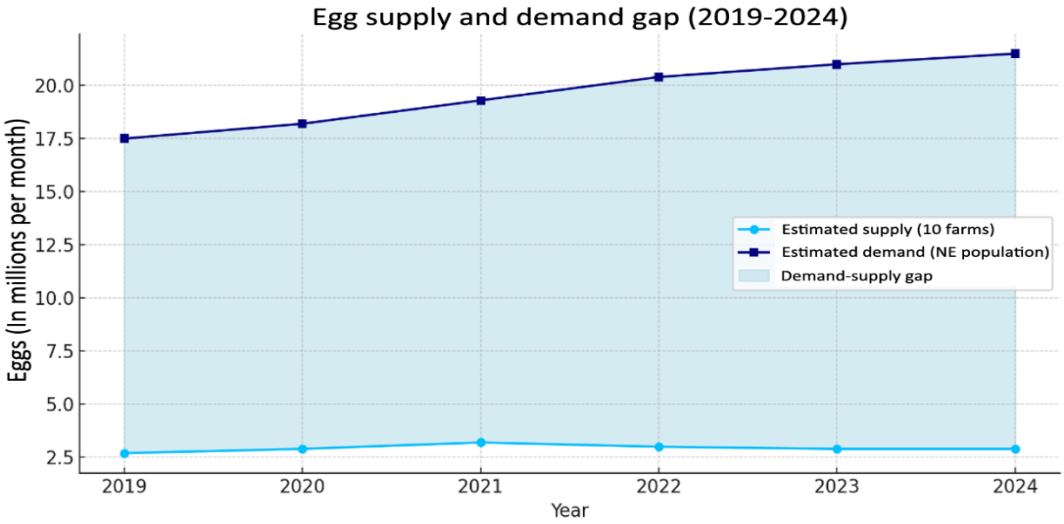

Figure 2. Estimated demand-supply gap for table eggs in Nueva Ecija (2019–2024).

The figure illustrates how the supply from the ten registered chicken layer farms has consistently fallen short of the growing demand for eggs in the province of Nueva Ecija. Moreover, it also reflects the significant years when the industry experienced instability. This occurred during an oversupply between 2021 and 2022, and then shortages in 2023 to 2024 due to avian influenza outbreaks.

Despite this gap, fluctuations in actual market dynamics occur due to shifting industry behaviors, disease outbreaks, and broader economic factors. Interviews with key informants from Nueva Ecija's veterinary and agriculture offices reveal that in late 2020, egg production surged after African Swine Fever (ASF) decimated local hog operations. Many hog raisers pivoted to poultry, including layers, resulting in a temporary oversupply, particularly during the early recovery phase of the COVID-19 pandemic (United States Department of Agriculture, 2021).

However, this increase in supply did not coincide with immediate recovery in demand, especially from the Hotel, Restaurant, and Catering (HoReCa) sector, which remained stagnant until late 2023 (Gomes, Malheiros, Campos, & Lima Santos, 2022). As a result, a period of overproduction and suppressed prices occurred. Interviews confirmed that production costs exceeded market prices during this time, rendering many producers unprofitable, despite high output.

This pattern was reversed during late 2023 to early 2024**,** when avian influenza outbreaks forced mass culling in key poultry zones, including Nueva Ecija. According to the Philippine Egg Board, nearly 2.5 million chicks were culled in the province, contributing to sharp production losses.

The resulting supply interruption occurred concurrently with seasonal demand spikes during the holidays, driving up egg prices. Retail price monitoring conducted by the Department of Agriculture (DA) in December 2022 found medium-sized eggs priced at ₱9.50 per piece, with some consumers opting for smaller "peewee" eggs priced at ₱7 (United States Department of Agriculture, 2021).

These observations show that although registered farms are generally unable to meet baseline demand, the demand-supply gap is not a static issue. Biosecurity incidents, rising feed costs, fluctuating investment trends, and the way consumer preferences continue to evolve are some of the factors that influence these changes. Figure 2 reflects how supply and demand have moved over the years (2019–2024).

The Philippine government introduced multiple programs to respond to the long-term impact of the African Swine Fever (ASF) outbreak on communities that relied heavily on livestock. The Egg Machine Program was created to provide support to smallholder farmers who were shifting from swine to poultry production, with the goal of helping them start or expand their layer farms and rebuild their livelihoods (Department of Agriculture, 2022).

As reflected and confirmed by the farm enterprise, the demand-supply gap in Nueva Ecija's chicken layering industry is due to multiple problems such as limited farm capacity, disease vulnerabilities, and inconsistent recovery of commercial demand. Although registered farms contribute consistently, their current scale cannot meet the province's growing needs.

In order to address these challenges, strategies related to disease control, increased investment in farm capacity, and more responsive marketing approaches are essential and should be implemented by chicken layer farm enterprises with the support of government agencies. The Department of Agriculture (DA), as the lead agency for agriculture, has already introduced interventions to support the chicken layer industry.

3.2. Distribution Practices of Chicken Layer Farms in Nueva Ecija

Egg distribution in Nueva Ecija is characterized by a relatively unregulated and flexible system that allows most chicken layer farms, particularly the 10 registered farms studied, to sell directly or through multiple informal channels. Most farms do not require permits or certifications to begin selling, except when dealing with larger institutional buyers, where traceability, such as farm ID and packing date, is requested.

Figure 3 illustrates the common distribution flow, where "viajeros" or egg consolidators collect directly from farms and transport to various retailers, markets, or institutional clients. This channel benefits farms by absorbing logistical risks and providing immediate cash flow, particularly for those without in-house transport systems or direct access to markets.

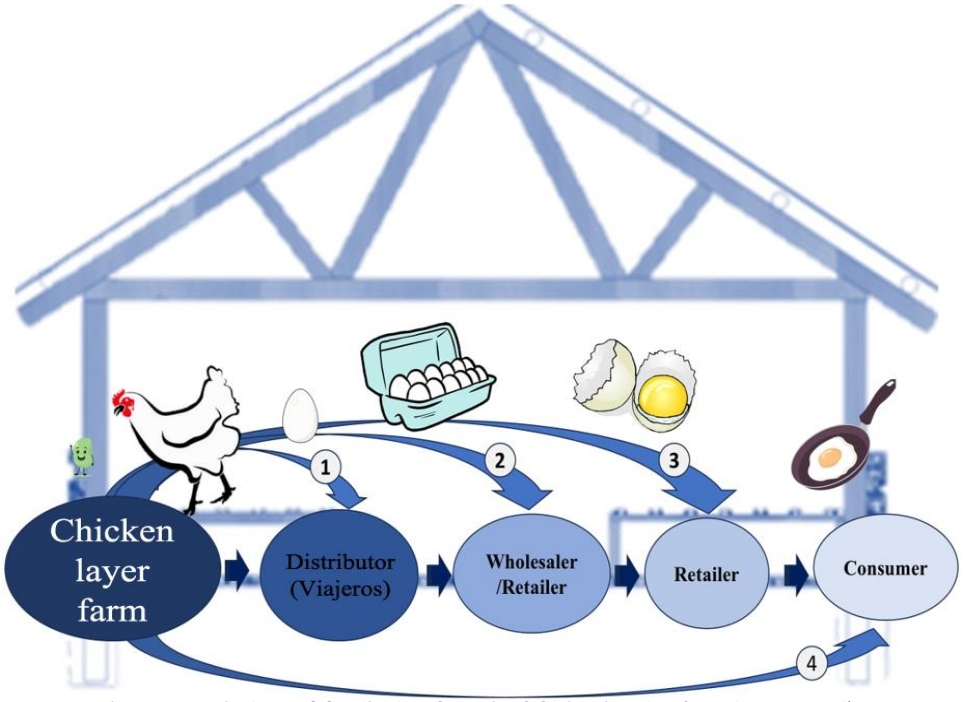

Figure 3. Marketing and distribution channels of chicken layering farms in Nueva Ecija.
Source: Conceptual framework developed by the researcher *(2024)*.

Survey findings indicate that all 10 farms utilize multiple marketing channels, but the most common pathway remains wholesaling to travelers, followed by supplying to retail markets, institutional buyers, and to a lesser extent, direct consumer sales. A few farms have started exploring digital platforms such as Facebook Marketplace or local Viber groups, though this remains limited.

Table 5 details the factors affecting channel choice. Price competitiveness ranked highest, with a mean of 1.13, followed by contractual arrangements, distribution logistics, product form, and lastly, promotion.

Table 5. Factors affecting the choice of marketing channels of chicken layer farms.

Factors	Mean rank	Final rank
Price	1.13	1st
Contractual security	1.53	2nd
Distribution/Place	2.16	3rd
Product form	2.78	4th
Promotion	3.66	5th

Note: Kendall's W = 0.54; χ^2 = 21.44; df = 4; m = 10.

According to the Philippine Statistics Authority (2023) price remains a dominant factor in agricultural markets, with variations between farm-gate and retail prices indicating potential bargaining practices by retailers. Retailers in Nueva Ecija are known for aggressive price bargaining, often undercutting farm-gate prices.

While recommended pricing exists, the absence of formal regulation results in a **race-to-the-bottom dynamic**, discouraging farmers from selling locally and pushing them to seek markets in Pampanga, Bulacan, and Aurora, where better terms may be offered.

Contractual arrangements, such as contract farming, are crucial for stabilizing agricultural supply chains and enhancing cooperation among stakeholders (Bekolli, Guardiola, & Meca, 2023). Farms with ongoing deals with bakeshops, restaurants, or grocery stores enjoy stable revenue and reduced spoilage risks, compared to those without fixed buyers.

However, contracts remain informal and often non-binding, limiting long-term security. Distribution logistics and geographic proximity significantly influence supply chain viability by enhancing efficiency and responsiveness (International Journal of Physical Distribution & Logistics Management, 2023). Only 3 of the 10 farms deliver daily, while others rely on consolidators or shared transport. Farms with direct channels cite lower delivery costs and faster turnover, while distant farms face high transport overheads and market unpredictability.

Product form is an emerging concern. As the market segments into value-conscious, health-oriented, and convenience-driven consumers, farms must differentiate their products not just by size but through branding and packaging. However, most farms still offer only basic, unpackaged eggs and are not yet engaged in market-based product development. Finally, promotion, especially via digital platforms, remains underutilized. While e-commerce adoption for fresh eggs is rising in urban areas, most farms in Nueva Ecija remain hesitant or inexperienced in online selling, limiting their access to direct-to-home markets.

In Nueva Ecija, most chicken layer farms still rely on traditional distribution practices, although some farmers have started exploring more modern approaches such as online selling and institutional partnerships. According to one farm owner, many still face difficulties with transportation, product packaging, and promotion, which continue to limit their ability to effectively market their products. Given these challenges, shifting toward a more strategic approach, particularly in marketing and distribution, is essential to help local farms improve their market positioning and build more resilient sources of income.

3.3. Market Orientation of Chicken Layering Farms in Nueva Ecija

This section examines how the ten registered chicken layer farms in Nueva Ecija understand and apply market orientation in their business operations, focusing on four key areas.

- Customer orientation.
- Competitor awareness.
- Interfunctional coordination.
- Responsiveness.

The data below are gathered based on structured surveys and interviews with farm owners who are formally recognized by the Provincial Veterinary Office of Nueva Ecija.

3.3.1. Customer Orientation

Based on the actual data collection, all ten respondents demonstrated a basic level of knowledge to customer needs, particularly when serving local buyers such as bakeshops, eateries, and sari-sari stores.

Many farm owners explained that they respond to client needs by modifying delivery schedules and providing a range of egg sizes to suit different buyers. During the interview, one respondent from Talavera noted that their farm started supplying medium and peewee-sized eggs to meet the rising demand from budget-conscious consumers during the post-pandemic recovery period. This is an evident example of how farm enterprises in the province adapt to changing consumer behavior.

As mentioned by one of the farm enterprises in Cabiao, their operations rely heavily on verbal feedback from repeat buyers, often relayed through viajeros. This practice is common across the province and reflects limited knowledge of customer orientation, a lack of structured approaches, and a constrained ability to respond effectively to customer needs.

This need is supported by Ijomah, Nwabekee, Agu, and Abdul-Azeez (2024) where it highlighted that CRM tools can strengthen sales and customer loyalty by helping agribusinesses better understand and engage with their customers

3.3.2. Competitor Orientation

Competitor knowledge among enterprises in the province is relatively adequate, as they are aware of price changes and possible alternatives to their products. From field visits, a farm in San Leonardo shared that they often lose local retailers to more affordable eggs coming from neighboring provinces such as Aurora or Bulacan.

Most farms showed a limited form of competitor orientation, often relying on price matching with viajeros. As Nybom, Hunter, Micheels, and Melin (2021) observed, these reactive strategies are typical in highly competitive environments, but they can hinder long-term growth and resilience if not approach in a strategic manner.

3.3.3. Interfunctional Coordination

During data collection, only one poultry farm enterprise reported assigning distinct functional roles for marketing, operations, and financial tasks such as bookkeeping. In contrast, most farms in the province follow a traditional setup, typically operated by family members handling multiple roles within the business. This practice is one of the reasons why growth and adaptability among these enterprises remain limited.

Relatively, according to one of the farm owner in Natividad, eggs in their area are sometimes oversupply because of the poor coordination in the production and marketing that resulted to loss of sales and spoilage of eggs. This is in line with the study by Hokmabadi, Rezvani, and de Matos (2024) which shows the importance of understanding and delegating of roles in every member regardless of the size of the enterprise.

3.3.4. Responsiveness

In terms of responsiveness among farms, the data gathered shows a moderate level in this aspect. In the interview, one of the farm owners from Cabiao shared that they adjusted their target market from institutional buyers to direct household deliveries during the Avian Influenza scare in 2022. This shows that, in a way, they were able to adapt to technological developments using social media platforms like Facebook.

Araújo, de Silva, da Gonçalves, and Correia (2024) observed that many micro, small medium enterprises (MSMEs) often rely on their intuition to forecast sales that often lead to frequent errors. The study supported the importance of basing their forecasting decisions on relevant data and having a structured feedback systems in order to have a more informed strategic decisions and minimize inefficiencies in operations.

Based on the data gathered by the researcher, only two farms declared utilizing online channels to be responsive and up-to-date with their customers' needs. The majority of them have limited digital literacy and lack knowledge in identifying actual or real-time demand, which has caused them to miss opportunities for their business.

Table 6. Summary table of market orientation levels.

Market orientation dimension	High (n=10)	Moderate	Low	Description
Customer orientation	3	5	2	Adjusted egg sizes based on buyer request; no formal tracking
Competitor orientation	1	4	5	Knows competitor prices but lacks benchmarking or analysis
Inter-functional coordination	2	3	5	Family-run, overlapping roles, informal planning
Responsiveness	4	4	2	Switched channels during AI outbreak; slow digital adaptation

Table 6 presents the market orientation levels of the ten registered chicken layer farms in Nueva Ecija across four dimensions. Customer orientation is generally moderate farms adjust egg sizes based on buyer requests but lack formal tracking systems. Competitor orientation is mostly low, as farmers know prevailing prices but do not engage in benchmarking or analysis. Inter-functional coordination is also limited due to overlapping roles in family-run operations. Responsiveness is relatively stronger, with some farms shifting channels during the Avian Influenza outbreak, although digital adaptation remains slow.

Overall, the findings suggest that while farmers respond to market needs, their approaches are largely informal and reactive. Improving market orientation will require support in basic market research, competitor monitoring, clearer role assignment, and the use of practical digital tools.

4. CONCLUSION

This study explored the marketing environment, distribution channels, and market orientation of the ten registered chicken layer farms in the province of Nueva Ecija, providing insights into their current practices and potential for growth. Despite stable demand and Central Luzon's significance in supplying eggs to neighboring provinces, supply constraints, seasonality, and external factors such as disease outbreaks continue to hinder consistent output.

Findings also reveal that egg marketing in Nueva Ecija remains largely traditional, relying heavily on intermediaries like viajeros, with minimal use of digital platforms. While farmers demonstrate practical awareness of customer needs and price trends, there is a lack of formal marketing structures and knowledge such as market analysis and cross-functional integration. One of the key interventions needed is to become more strategic by utilizing data-driven forecasting to improve marketing performance. Farms need to strengthen their responsiveness to market dynamics, diversify beyond intermediary-dominated channels, and establish sustainable, differentiated market positions.

To address these challenges, this study recommends a strategic approach focused on strengthening market orientation. Farms must gather regular customer feedback and monitor competitor behavior. Building stronger ties with distributors and institutional buyers is necessary, alongside exploring branding and innovative product offerings tailored to market needs.

Moving forward, the study recommends exploring tech-based solutions, such as simple forecasting tools and community delivery-matching platforms, to help farms plan better and reach more buyers. These technologies need not be complex; they should be practical and grounded in farmers' real needs. With further development, they can also serve as potential IP outputs that promote local innovation and digital transformation in poultry agribusiness. Overall, this study aims not only to elevate the performance of Nueva Ecija's chicken layer farms but also to contribute to broader goals of food security and regional economic stability.

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Institutional Review Board Statement: The study involved minimal risk and followed ethical guidelines for social science fieldwork. Formal approval from an Institutional Review Board was not required under the policies of Nueva Ecija University of Science and Technology. Informed verbal consent was obtained from all participants, and all data were anonymized to protect participant confidentiality.
Transparency: The author states that the manuscript is honest, truthful, and transparent, that no key aspects of the investigation have been omitted, and that any differences from the study as planned have been clarified. This study followed all writing ethics.
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