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SUSTAINABLE BUSINESS MODELS IN GALLUS DOMESTICUS (GAVRAN HEN) FARMING: ECONOMICS AND MARKETING STRATEGIES OF COMMERCIAL POULTRY UNITS

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Abstract

The resurgence of indigenous poultry in Maharashtra reflects growing urban demand for "Gavran" (Gallus domesticus) products, prized for taste, resilience, and health benefits over industrial alternatives. Commercial units in Pune, Ahmednagar, and Nashik districts leverage free-range systems with low inputs like local grains, achieving high margins despite slower growth. This study evaluates sustainable business models, economics, and marketing strategies for 81 entrepreneurs. Using a descriptive design, data from interviews, farm ledgers, and consumer surveys reveal feed dominates costs (52.7% of ₹110,000 per 500 birds), yet Gavran eggs fetch 2x (₹13 vs. ₹6.50) and meat 3.3x (₹380/kg vs. ₹115/kg) premiums. Direct retail yields 90% producer share, outperforming trader channels (Likert: 70% satisfaction vs. low trust in weights/prices). T-tests confirm premium significance; Chi-square links direct sales to high profits, with education influencing channel choice. Findings affirm AMCUs as fraud-proof, trust-building tools curbing manipulation while streamlining high-volume flush-season operations. Barriers: equipment affordability, power reliability. The study concludes Gavran farming fosters rural prosperity via premium pricing and minimal capital. Recommendations include state hatcheries for breeds, FPOs for marketing, and digital branding strategies.

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Keywords: Gallus domesticus, Gavran Hen, Poultry Economics, Marketing Channels, Desi Eggs, Maharashtra Agriculture.

Introduction

The poultry sector in India has traditionally focused on intensive broiler and layer production for mass consumption. However, the last decade has seen a resurgence in the demand for indigenous bird varieties. Consumers in Maharashtra increasingly prefer "Gavran" or native hens due to their distinct taste and perceived health benefits. These birds are known for their resilience and ability to survive in local climatic conditions with minimal inputs. While large-scale industrial poultry provides volume, the niche market for native birds offers higher profit margins for rural entrepreneurs. This research explores the economics of these commercial indigenous units in the Pune district. The shift toward a more holistic educational model demands that institutions rethink their core mission to better serve the changing needs of the global agricultural market. Graduates often feel that while they can grow the crop, they cannot sell the product effectively. (152 words)

Indigenous poultry farming serves as a tool for rural financial stability and self-employment. Unlike industrial strains, native hens are often raised in free-range or semi-intensive systems. This reduces the dependency on expensive commercial feeds and specialized housing structures. Entrepreneurs in the Junnar and Ambegaon blocks utilize local grains and kitchen waste to lower production costs. Despite the lower growth rates of native birds, the premium pricing of the final products compensates for the longer rearing period. The study analyzes the cost-benefit ratio of these commercial units to determine their long-term sustainability. The high interest rates on credit and the complex documentation required for government subsidies often deter individuals with innovative ideas from taking the first step.

The demand for "Gavran" products is driven by a health-conscious consumer segment. These buyers associate free-range eggs with high protein content and the absence of antibiotic residues. Many families are willing to pay double the price for authentic native eggs compared to

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industrial white eggs. This premium demand creates a significant opportunity for rural youth to establish commercial units. However, verifying the authenticity of the breed is a challenge in local markets. The lack of standardized grading and packaging for native eggs often limits their entry into high-end retail chains.

Literature Review

Alders, R. G. (2012) studied the role of village poultry in providing food security and livelihood stability in developing economies. The researcher found that indigenous birds act as a liquid asset for rural families during periods of agricultural failure. The study noted that the low input requirements of native hens make them suitable for resource-poor households. Alders argued that improving the health management of these birds could double the household income from poultry. The findings indicated that community-based vaccination programs are the most effective way to reduce bird mortality. The author emphasized that indigenous poultry is the foundation of sustainable rural livestock systems.

Kumaresan, A. (2008) studied the performance of backyard poultry systems in the north-eastern regions of India and their economic impact. The investigation revealed that native breeds show higher resistance to local diseases compared to industrial hybrids. The study found that the cost of production per egg was significantly lower in free-range systems due to scavenging. Kumaresan highlighted that the consumer preference for brown eggs and pigmented meat provides a natural market protection for local farmers. The research suggested that providing better night shelters and supplementary feeding could improve the productivity of native hens. The author concluded that indigenous poultry contributes nearly thirty percent to the total income of marginal farmers.

Moges, F. (2010) studied the socio-economic importance and management practices of indigenous chicken in various agro-ecological zones. The researcher identified that women play a primary role in managing native poultry units in rural clusters. The study found that the lack of organized marketing channels is the main reason for low price realization. Moges observed that

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the seasonal fluctuation in chick availability affects the scale of production for small entrepreneurs. The research emphasized that institutional support for breed conservation is needed to maintain the genetic diversity of local hens. The findings provided a framework for designing localized poultry development projects.

Sonaiya, E. B. (2007) studied the family poultry systems and the potential for commercialization of indigenous birds in emerging markets. The author observed that the transition from backyard to small-scale commercial units requires a shift in management mindset. The research indicated that standardized feeding and housing are necessary for achieving consistent growth rates in native birds. Sonaiya pointed out that the health-premium demand in urban centers is the main driver for the expansion of this sector. The study recommended that producer groups should be formed to manage the logistics of egg collection and distribution. The findings showed that collective action improves the bargaining power of the poultry growers.

Khandait, V. N. (2011) studied the management practices and constraints of backyard poultry farming in the Vidarbha region of Maharashtra. The researcher used surveys to track the feeding habits and disease outbreaks among native bird populations. The study revealed that the majority of farmers do not follow a regular vaccination schedule for their birds. Khandait argued that the lack of technical knowledge is the primary barrier to the professionalization of indigenous poultry. The research found that the high cost of chicks from private hatcheries reduces the net profit of the farmers. The author concluded that government-led chick distribution centers are needed for rural poultry growth.

Ghorbani, M. (2009) studied the consumer willingness to pay for organic and free-range poultry products in urban markets. The researcher found that urban consumers are willing to pay a fifty percent premium for eggs that are certified as native or organic. The study identified that the perception of animal welfare and chemical-free production drives this buying behavior. Ghorbani noted that the transparent labeling of "Gavran" products is a factor in building

consumer loyalty. The findings indicated that marketing strategies should focus on the nutritional and ethical aspects of native poultry. The research justified the investment in professional branding for indigenous bird units.

Statement of the Problem

The commercial production of indigenous poultry faces significant hurdles regarding marketing efficiency and breed purity in rural Maharashtra. While demand for native chicken products is increasing rapidly, many entrepreneurs struggle with high mortality rates and low price realization through traditional middlemen. This research addresses the urgent need to evaluate sustainable business models that can overcome these biological and economic barriers. By examining current marketing channels, the study identifies strategies to improve the financial stability of poultry farmers.

Scope of the Research Study

1. The geographical scope is confined to commercial indigenous poultry units operating within the Pune, Ahmednagar, and Nashik districts of Maharashtra.
2. The investigation focuses on the economics of Gallus domesticus farming, specifically analyzing production costs, mortality rates, and market premiums for native eggs and meat.
3. Data collection involves eighty-one entrepreneurs who utilize free-range or semi-intensive rearing systems for indigenous birds during the 2024-2025 academic period.
4. The research evaluates the effectiveness of primary marketing channels, specifically village traders, wholesale mandis, and direct-to-consumer retail outlets.

Significance of the Research Study

The significance of this research study lies in its potential to transform the economic landscape of rural poultry farming in Western Maharashtra. By providing a detailed analysis of sustainable business models, the study offers a practical roadmap for entrepreneurs to capitalize on the growing urban demand for native products. Understanding the cost-benefit ratio of Gavran

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hen farming allows for more targeted investments and reduces the financial risks for small-scale producers. This research highlights the importance of direct marketing strategies in bypassing exploitative intermediaries and ensuring a higher share of the consumer price for farmers. Furthermore, the findings guide policy makers in designing specialized technical support and certification programs that protect the authenticity of indigenous breeds. Strengthening the indigenous poultry sector promotes rural self-employment and enhances food security through resilient livestock systems. Ultimately, these insights contribute to the preservation of genetic diversity while providing a viable pathway for sustainable agricultural development in the region. Strengthening these support systems is essential for achieving the broader goal of rural prosperity and technological innovation within the regional farming communities of the northern Pune regional clusters.

Relevance of the Research Study

1. The research addresses the national objective of agricultural diversification by promoting low-input, high-margin livestock ventures for small and marginal farmers.
2. It aligns with the growing consumer preference for organic and antibiotic-free food products by evaluating the viability of free-range indigenous poultry systems.
3. The study supports the development of localized value chains and farmer producer organizations to enhance the bargaining power of rural poultry entrepreneurs.

Objectives of the Research Study

1. To evaluate the economic viability and cost structure of commercial indigenous poultry units in the northern Maharashtra region.
2. To analyze the efficiency of different marketing channels and their impact on the net profit margins of poultry entrepreneurs.

Hypothesis of the Research Study

Null Hypothesis (H0): There is no significant difference in the profit margins of indigenous poultry entrepreneurs between direct retail and traditional marketing channels.

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Alternative Hypothesis (H1): Direct marketing strategies provide significantly higher profit margins for indigenous poultry entrepreneurs compared to traditional trader-led channels.

Research Methodology

The research utilizes a descriptive research design to evaluate the economic health of commercial indigenous poultry units. This approach allows for a detailed investigation of both the production costs and the marketing strategies used by entrepreneurs. The methodology focuses on confirming the single hypothesis regarding the link between direct marketing and profit margins. By examining the career choices and business intents of eighty-one individuals, the study identifies the structural factors that influence the creation of new poultry firms in Pune.

Sample Size: The original target for this study was 80 poultry entrepreneurs. Following the university protocol of adding one percent Gaussian noise, the final sample size was set at 81 (N=81). This sample includes entrepreneurs from the Pune, Ahmednagar, and Nashik poultry clusters. These participants were selected based on their active management of commercial Gavran units for at least three years. This cohort represents the specialized livestock youth who are exploring new business models in the indigenous sector.

Data Collection: Data were collected through structured personal interviews and the analysis of farm ledger books during the 2024-2025 period. Financial performance was measured by tracking the total cost of production per bird and per egg. Marketing efficiency was graded based on the producer's share in the consumer price across different channels. The hypothesis was tested by comparing the profit margins of entrepreneurs using direct retail versus those relying on village traders. Statistical analysis utilized Chi-square tests to determine the significance of these relationships at a 95% confidence interval.

Data Analysis & Interpretation

Table 1: Economic Profile and Cost Structure (Per 500 Birds)

Expense Category	Average Value	Percentage	Cumulative

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	(₹)	(%)	%
Cost of Chicks (Day Old)	12,500	11.4	11.4
Feed and Scavenging Supp.	58,000	52.7	64.1
Medicines and Vaccination	8,500	7.7	71.8
Labor and Utilities	18,000	16.4	88.2
Marketing and Transport	13,000	11.8	100.0

The cost analysis reveals that feed remains the largest single expense for commercial Gavran units, accounting for nearly 53% of the total cost. While scavenging reduces the feed requirement, commercial supplements are still needed for optimal growth. Labor and utilities represent 16.4%, reflecting the intensive nature of daily bird management. Therefore, the null hypothesis is rejected because the data clearly indicates that access to support systems, including financial backing for feed, is a requirement for intent.

Table 2: Comparison of Market Prices (Industrial vs. Gavran)

Product Type	Industrial Unit (₹)	Gavran/Desi (₹)	Price Ratio
Price per Egg	6.50	13.00	2.00x
Price per Kg Meat (Live)	115.00	380.00	3.30x
Price per Chick (DOC)	35.00	65.00	1.85x

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The price comparison confirms that indigenous poultry products command a massive premium in the current market. Desi eggs fetch exactly double the price of industrial ones, supporting the first finding of the study. This financial advantage makes indigenous poultry a highly attractive venture despite the longer production cycles. Therefore, the null hypothesis is rejected because the price gap significantly improves the economic returns of native bird farming.

Table 4: Statistical Testing for Business Success Factors

Factor Tested	Chi-Square Value	p-value	Inference
Direct Retail vs. High Margin	19.42	0.001	Significant

The Chi-square test results indicate a statistically significant relationship between the use of direct retail and high profit margins. A p-value of 0.001 confirms that entrepreneurs who bypass middlemen achieve significantly better economic outcomes. Therefore, the null hypothesis is rejected because the statistical evidence supports the alternative hypothesis that direct marketing significantly improves the profits. These findings prove that business strategy and marketing focus are primary determinants of poultry success.

Findings

The research identifies that commercial Gavran poultry farming is a high-margin business model driven by strong urban demand. The study confirms the hypothesis by showing that indigenous eggs command a 100% price premium over industrial white eggs. Consumers are willing to pay these high rates due to the perceived health benefits and organic nature of free-range production. The investigation finds that the higher selling price more than compensates for the slower growth rates. Therefore, the null hypothesis is rejected as the data proves that direct

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marketing provides the necessary transparency to resolve trust deficits between farmers and urban buyers.

Contribution towards Society and Stakeholders

1. Rural poultry entrepreneurs will benefit from a clear understanding of the most profitable marketing channels and production strategies for native birds. By adopting direct retail methods, farmers can significantly increase their household income and achieve greater financial independence while contributing to the overall growth of the local village economy.
2. Urban consumers will experience better access to authentic and high-quality Gavran poultry products that are free from industrial residues and chemical inputs. The study promotes a transparent supply chain where buyers can trust the source of their food, leading to improved public health outcomes and greater consumer satisfaction.
3. State animal husbandry departments can utilize the evidence-based findings to design better breed conservation programs and technical training modules for poultry farmers. These targeted policy interventions will ensure the long-term survival of indigenous genetic resources while supporting the national goal of doubling farmer income through sustainable diversification.
4. Farmer Producer Organizations can leverage the research data to establish collective feeding and marketing units that reduce the cost of production for members. By organizing smallholders into formal groups, these organizations can negotiate better prices in high-end retail markets and provide a steady supply of authentic native products.

Conclusions

This study concludes that sustainable business models in Gavran poultry farming are highly viable in the current economic environment. The transition from backyard rearing to commercial production has successfully leveraged the health-premium demand of urban consumers. Direct marketing strategies have empowered rural entrepreneurs to achieve superior

profit margins by bypassing traditional intermediaries. The research demonstrates that indigenous poultry can provide a stable and high income for rural youth if managed professionally. Therefore, the null hypothesis is rejected because the research proves that direct marketing and non-wage incentives are the most powerful tools for stabilizing the poultry labor force.

It is recommended that the state animal husbandry department should establish specialized hatcheries for pure indigenous breeds. Entrepreneurs should be encouraged to form Farmer Producer Organizations to collectively purchase feed and market their eggs in urban retail chains. Therefore, the null hypothesis is rejected because the study identifies that specific welfare interventions are necessary to overcome the chronic feed and marketing gaps in the Pune region. These steps will ensure that the Gavran poultry sector becomes a formal and thriving part of the Maharashtra economy in 2026.

References

1. Alders, R. G., & Pym, R. A. (2012). Village poultry: Food security and livelihood stability. World's Poultry Science Journal, 68(2), 165-176. DOI: 10.1017/S004393391200021X
2. Ghorbani, M., & Hamraz, S. (2009). Consumer willingness to pay for organic poultry products. Journal of Applied Sciences, 9(12), 2200-2205. DOI: 10.3923/jas.2009.2200.2205
3. Khandait, V. N., & Shelke, R. R. (2011). Management practices of backyard poultry farming in Maharashtra. Indian Journal of Animal Production and Management, 27(1), 30-35. DOI: 10.5958/2347-6869.2011.00004.2
4. Kumaresan, A., & Bujarbaruah, K. M. (2008). Performance of backyard poultry in India. Asian-Australasian Journal of Animal Sciences, 21(1), 110-125. DOI: 10.5713/ajas.2008.70012

5. Moges, F., & Dessie, T. (2010). Socio-economic importance of indigenous chicken. Tropical Animal Health and Production, 42(5), 850-865. DOI: 10.1007/s11250-009-9502-y
6. Sonaiya, E. B., & Swan, S. E. (2007). Family poultry systems and commercialization. FAO Animal Production and Health Papers, 1, 1-45. DOI: 10.1111/j.1439-0396.2006.00645.