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An analytical study on the constraints faced by contract broiler entrepreneurs in Tiruppur district of Tamil Nadu

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Abstract

The poultry sector in India is a rapidly expanding component of the agricultural economy, vital for food security, rural employment, and income generation. Tiruppur district in Tamil Nadu stands out as a significant production cluster for both broiler and layer farming due to favourable agro-climatic conditions and market linkages. Despite growth and commercialisation, poultry entrepreneurs face multi-dimensional constraints affecting productivity and profitability. This study uses an ex post facto exploratory design to assess key challenges experienced by fifteen broiler contract entrepreneurs in Palladam block of Tiruppur district. Constraints were categorised into market, resource, administrative, and technical domains and measured by severity scores. Results identify feed-related issues as the most acute constraint, followed by market price volatility, management challenges, and technical difficulties such as mortality. The study highlights the necessity of targeted interventions, including market stabilisation policies, coordinated feed supply systems, managerial capacity building, and technical extension support. Addressing these constraints through cooperative models and policy measures can significantly enhance livelihood sustainability for small and medium-scale poultry entrepreneurs.

Keywords: Poultry farming, contract broiler farming, constraints analysis

Introduction

The poultry sector is one of the most rapidly developing components of India's agricultural economy, playing a vital role in enhancing food security, generating employment, and contributing to rural income. In India, poultry farming provides a steady source of livelihood for millions of small and medium-scale farmers, particularly in states like Tamil Nadu, where favourable climatic conditions, entrepreneurial culture, and well-developed market linkages have supported the sector's growth. Tamil Nadu ranks among the top poultry-producing states, with Tiruppur district being a major hub of both broiler and layer farming activities. The district's proximity to feed mills, hatcheries, and processing units has facilitated its emergence as a prominent poultry production cluster. However, despite these advantages, poultry entrepreneurs in Tiruppur continue to face multifaceted constraints that influence their productivity, profitability, and sustainability (AHD, Govt. of Tamil Nadu, 2025) ^[1].

Poultry entrepreneurship in Tiruppur has evolved significantly over the past two decades, transitioning from backyard enterprises to commercially organised ventures under both independent and contract farming systems. This shift has brought in technological advancements and market integration, yet numerous structural and operational challenges persist. Constraints such as the high cost of feed ingredients, disease outbreaks, fluctuations in input and output prices, lack of organised marketing channels, and limited institutional credit facilities often hinder the smooth

functioning of poultry enterprises. Furthermore, the volatility in the poultry supply chain, emerging environmental concerns, and limited access to scientific management practices exacerbate the difficulties faced by entrepreneurs, especially smallholders and new entrants (Ravikumar and Rajendran, 2020) ^[13]. These challenges reflect not only production-related bottlenecks but also gaps in policy support, infrastructure, and capacity building.

From a socio-economic standpoint, the poultry sector in Tiruppur contributes substantially to rural livelihoods, particularly among marginal and landless farmers who engage in poultry rearing as a viable source of supplementary income. Yet, the extent of entrepreneurial success in this sector is heavily influenced by a farmer's access to resources, technical know-how, and institutional linkages. Studies conducted across southern India have consistently highlighted that constraints such as inadequate veterinary services, limited training access, and insufficient government support impede the sector's growth potential (Selvakumar *et al.*, 2019; Pandian and Kumaravelu 2021) ^[15]. These challenges require systematic analysis to identify the relative severity of constraints across different categories of entrepreneurs—contract, semi-intensive, and independent farmers.

A comprehensive constraint analysis serves as a diagnostic tool to prioritise problem areas and guide strategic interventions for policy formulation and capacity enhancement. In the context of Tiruppur district, where poultry enterprises significantly contribute to both

employment and district GDP, such an analysis is essential for optimising local resource use and reducing entrepreneurial risk. Understanding the constraints at the grassroots level enables researchers, extension agencies, and policymakers to design targeted interventions that can strengthen input delivery systems, disease surveillance mechanisms, marketing networks, and credit access for poultry entrepreneurs. The present study, therefore, aims to analyse the constraints faced by poultry farm entrepreneurs in Tiruppur district, Tamil Nadu, and to suggest suitable measures for addressing these limitations. Insights from this analysis can support the development of locally adaptive strategies that enhance sustainability, profitability, and resilience in the poultry farming ecosystem.

Methodology

The present study employed an ex post facto and exploratory research design and was conducted in Tiruppur district of Tamil Nadu. The Palladam block, identified as having the highest concentration of broiler contract farmers, was purposively selected as the study area. A purposive sample comprising fifteen broiler contract farming entrepreneurs was drawn for detailed investigation. In order to identify the constraints encountered by contract farming entrepreneurs, consultations were held with both contract farmers and entrepreneurs from non-sampling areas. Additionally, relevant literature and prior research were reviewed to refine and verify the list of potential constraints. The identified constraints were systematically classified into four major categories: Market, Resource, Administrative and Technical. The degree of severity of each constraint was assessed using a three-point continuum—major constraint, somewhat constraint, and not a constraint—with corresponding scores of 3, 2, and 1 respectively.

Results

Market Constraints

The market constraints for broiler contract entrepreneurs comprise five principal factors. 'Low price for broilers' (mean score: 2.93) ranks as the most severe, followed by 'High transport cost' (2.7). 'Flexible broiler prices' (2.33) and 'Low returns/profit' (2.22) continue to create uncertainty for both entrepreneurs and farmers, while 'Consumer dissatisfaction' is viewed as less critical (1.27). The domain average for market constraints is 2.29, reflecting a consistently high level of challenge in this area.

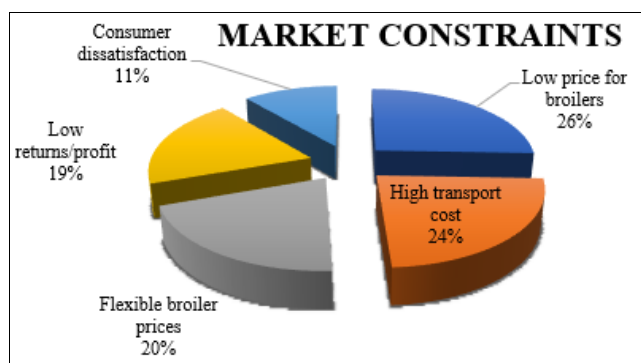


Fig 1: Market Constraints

Resource Constraints

Resource constraints are most pronounced, with 'Feed-related issues' having the highest possible mean score of 3, marking it as the top-ranked constraint across all domains. 'Supply of chicks' is another major issue (2.2), while infrastructural barriers such as 'Establishing feed mill' (1.33) and limited vaccination (1.13) are significant but less acute. Veterinary care, strain selection, and hatchery issues all scored at or just above 1, indicating their relatively lesser but still relevant role. The average score for resource constraints is 1.53.

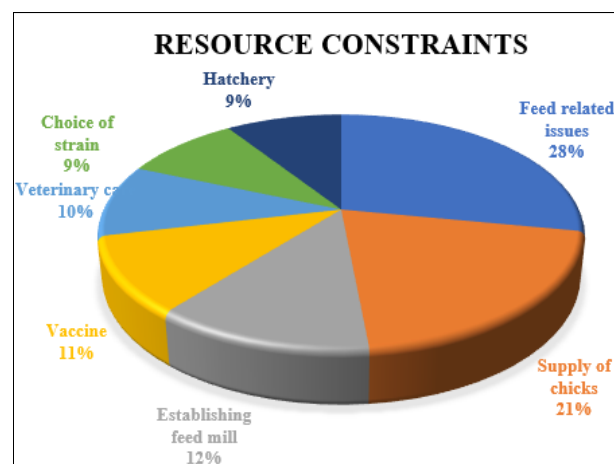


Fig 2: Resource Constraints

Administrative Constraints

Administrative challenges focus most on 'Lack of optimal management performance' (1.93) and 'High input cost' (1.81). Issues of rule violation (1.6) and utility costs (1.2) reflect difficulties in compliance and expense. The least concerning are 'Costlier management practices' (1.13) and 'Delay in arranging contract' (1.07). The domain average stands at 1.45.

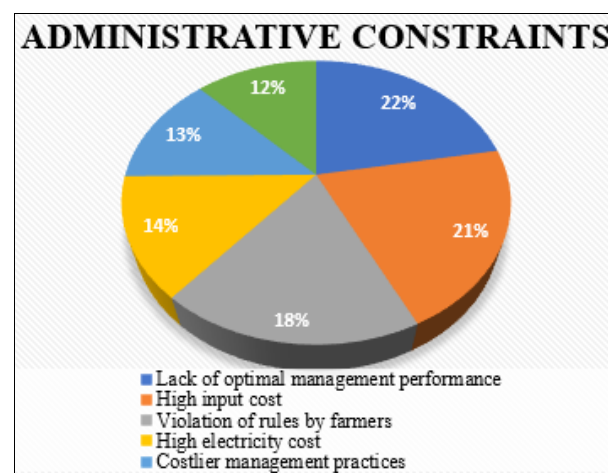


Fig 3: Administrative Constraints

Technical Constraints

Technical constraints, though less severe in general, still challenge the broiler contract farming entrepreneurs. 'High mortality rate' emerges as the most significant technical

difficulty (1.4), while the expense associated with recommended techniques (1) is seen as less problematic. The technical domain average, at 1.2, indicates fewer critical barriers than other domains but is still worthy of attention.

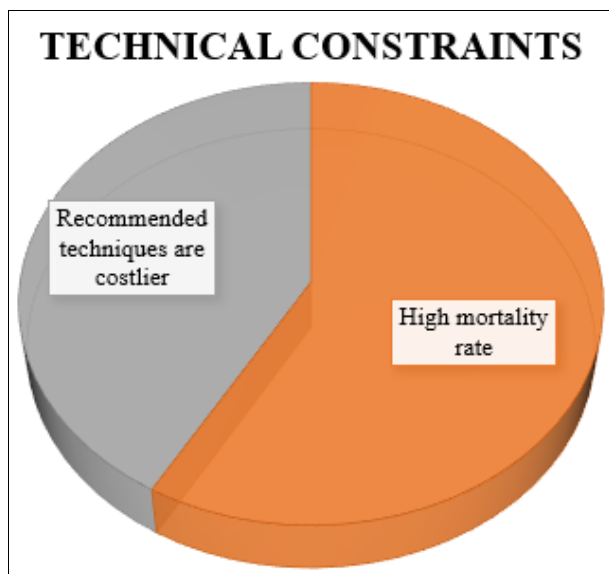


Fig 4: Technical Constraints

Discussion

Market Constraints

High market constraints are consistent with previous literature, where price instability, transport costs, and low returns are frequently cited as major obstacles for Indian poultry both entrepreneurs and farmers. The data indicate both broiler contract farming entrepreneurs and broiler farmers remain vulnerable to market forces largely outside their control, reinforcing the need for policy reform, price stabilisation measures, and improved logistical networks. Research by Ramasamy *et al.*, (2023) ^[12] underscores similar findings for contract poultry enterprises in South India, recommending assured pricing and cooperative approaches. Singh, (2019) ^[16] highlighted that the price fluctuations and transport inefficiencies as key factors reducing farmer profitability in northern India. Kumar *et al.*, (2022) ^[8] further emphasised the risks posed by weak market linkages and the lack of organised marketing infrastructure to smallholder poultry producers across India. These findings reinforce the urgent need for targeted policy interventions and market reforms to mitigate external vulnerabilities for broiler farmers and entrepreneurs.

Resource Constraints

Among resource constraints, feed-related issues rank highest among all domains, echoes studies by Prakash *et al.*, (2022) ^[10], which highlight fluctuating feed supply, variable chick quality, and erratic access to vaccines as enduring challenges. Solutions such as decentralised feed production, procurement cooperatives, and extension-led supply chain management are vital. The accumulated evidence points towards cluster-based on-farm feed units and government-supported vaccine procurement to bolster resilience and reduce input vulnerability. For instance, the case of Premium Chick Feeds, a leading poultry company in India,

illustrates the critical need for integrated feed and vaccine supply chains to support thousands of contract farms across multiple states (Tyagi, 2024) ^[19]. Similarly, the use of Farmer-Producer Organisations (FPOs) in decentralising input supply to smallholders has shown promise in enhancing access to feed, chicks, and vaccines (Selco Foundation, 2021) ^[14]. Moreover, Kerala's poultry sector analysis reveals that government intervention in feed production facilities and supply regulation could reduce dependence on private monopolies and stabilise input availability (Kerala State Planning Board, 2023) ^[6]. Ongoing innovations in poultry feed supply and management through smart technologies further suggest ways to optimise feed use and health monitoring in small and medium poultry enterprises (Poultry Trends, 2025) ^[11].

Administrative Constraints

Administrative constraints reflect issues of managerial capacity, cost containment, and compliance. The present findings suggest investment in digital record-keeping, targeted managerial training, and simplification of contract arrangements. Improving administrative capacity at the entrepreneur level directly correlates to better overall performance and greater contract adherence. Similar concerns regarding managerial inefficiencies, high input costs, and contract enforcement issues were documented by Arun *et al.*, (2022) ^[2], who emphasised the need for formalised contracts and cooperative associations to reduce power asymmetries between contractors and farmers. Moreover, studies by Gunchinsuren (2023) ^[5] and Kumar *et al.*, (2019) ^[7] highlight the critical role of administrative training, transparent record-keeping, and regulatory oversight in enhancing the sustainability of contract farming models. These studies collectively advocate for digital interventions and policy frameworks to streamline contract processes and empower smallholders administratively.

Technical Constraints

Technical challenges, such as poultry mortality and the costs of new recommended practices, mirror findings across South Asian and African poultry projects, as summarised by Singh *et al.*, (2022) ^[17]. Mortality is often driven by suboptimal disease prevention, lack of technical know-how, and insufficient veterinary support. Studies in smallholder poultry systems in Vietnam show that disease outbreaks, including avian influenza and endemic infections like Newcastle disease, strongly influence mortality rates and farmer responses, which often involve premature depopulation of flocks that may exacerbate disease spread (Delabougise *et al.*, 2020) ^[4]. In village chicken production systems in Ethiopia, predation, mismanagement, and infectious diseases are among the leading causes of mortality, highlighting the need for improved housing, management, and disease control (Tadesse *et al.*, 2019) ^[18]. Broadening this perspective, Birhanu *et al.*, (2023) ^[3] underscore the significance of smallholder poultry production in poverty reduction while emphasising the critical need for technical training and veterinary extension to reduce mortality and improve productivity. Recommendations across these studies include intensive technical training for farmers, periodic extension workshops, and affordable dissemination of tailored

technologies applicable to small-scale producers, all aimed at reducing mortality and improving adoption of best practices.

Comparative Analysis and Policy Implications

An analysis of mean scores and ranks across domains reveals the following priority order of constraint severity: resource constraints (feed-related issues being most acute), followed by market constraints (especially price volatility and transport costs), administrative factors (management and input costs), and finally technical challenges.

The constraint matrix derived from the data allows policymakers, researchers, and practitioners to concentrate efforts where impact will be most substantial. Prioritising feed quality and supply systems, assuring market price fairness, subsidising transportation, and upskilling management can together substantially raise the viability of broiler contract farming in Palladam block.

Government agencies, integrators, and development partners in Tamil Nadu are encouraged to implement targeted measures—price supports, cooperative supply structures, administrative simplification, and enhanced technical assistance—to maximise the sustainability and prosperity of broiler contract entrepreneurs and farmers in Palladam and similar regions.

These results and graphs can inform the creation of customised training programs, extension materials, and advocacy aimed at tackling the most critical constraints in broiler contract farming. Applying these insights will help project planners and extension workers develop effective interventions and policy recommendations for sustainable poultry development in local contexts.

Recommendations for Broiler Contract Farming Improvement

The findings underscore the need for a multi-pronged approach:

- Strengthen market linkages and stabilise broiler prices through government-backed price assurance or minimum support price systems.
- Develop coordinated feed supply platforms, minimise input volatility, and facilitate collective procurement for key inputs.
- Implement targeted training in optimal poultry management, financial literacy, and adherence to contract norms.
- Ensure affordable access to electricity and rationalise management costs for small-scale entrepreneurs.
- Focus on technical extension interventions—specifically, mortality-reduction strategies and affordable, locally-adapted technological packages.
- Facilitate access to veterinary and vaccine services to enhance flock health and productivity.
- Encouraging cooperative and cluster-based models can provide economies of scale, improve bargaining power, and enhance collective risk sharing.

Conclusion

Broiler contract farming in Palladam block is characterised by significant challenges, particularly in the domains of resource and market management. Addressing these through targeted interventions and support mechanisms can unlock

the sector's potential, bolstering rural incomes, employment, and food security. The nuanced understanding provided by the data ensures interventions are data-driven, locally relevant, and sustainable in approach.

The data-driven constraint analysis can help inform the development of targeted extension programs or contract negotiation strategies in Palladam block and similar regions. Leveraging these insights may guide improved project designs, foster resource-sharing models, and support policy recommendations that empower both broiler contract entrepreneurs and broiler contract farmers.

Table 1: Constraints faced by the entrepreneurs in broiler contract farming

S. No.	Nature of constraints	Mean score	Rank	Domain average
A	Market constraints			
1	Low price for broilers	2.93	I	2.29
2	High transport cost	2.7	II	
3	Flexible broiler prices	2.33	III	
4	Low returns/profit	2.22	IV	
5	Consumer dissatisfaction	1.27	V	
B	Resource constraints			
1	Feed related issues	3	I	1.53
2	Supply of chicks	2.2	II	
3	Establishing feed mill	1.33	III	
4	Vaccine	1.13	IV	
5	Veterinary care	1.07	V	
6	Choice of strain	1	VI	
7	Hatchery	1	VI	
C	Administrative constraints			
1	Lack of optimal management performance	1.93	I	1.45
2	High input cost	1.81	II	
3	Violation of rules by farmers	1.6	III	
4	High electricity cost	1.2	IV	
5	Costlier management practices	1.13	V	
6	Delay in arranging contract	1.07	VI	
D	Technical constraints			
1	High mortality rate	1.4	I	1.2
2	Recommended techniques are costlier	1	II	

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