

Farmers' Perspective Towards Existing Poultry Contract Farming Model in Anand District of Gujarat

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Abstract

Contract farming in India can be seen in the production of various agricultural commodities. It has also been recognized in the poultry sector with Suguna Poultry pioneering in contract farming in this sector. Anand district in Gujarat has also witnessed rapid growth in contract farming in poultry. Many farmers who were earlier engaged in poultry farming as independent grower moved toward contract farming model. The paper has tried to study in detail the 'modus operandi' of poultry contract farming and the current scenario in Anand district of Gujarat, particularly what factors play role in entering into contract farming and the farmers' satisfaction level towards the integrator.

Keywords: Contract Farming, Poultry growers, Poultry integrator, Broiler farming, Anand district

Contract farming can be defined as an agreement between farmers and processing and/or marketing firms for the production and supply of agricultural products under forward agreement, frequently at predetermined prices (Eaton & Shepherd, 2001)^[2]. It has the provision of production support to the farmer in the form of supply of inputs and technical advice; and commitment on the part of farmer to provide the agricultural produce of pre-agreed quality and quantity and on the part of the company to purchase the produce.

The poultry sector in India witnessed contract farming in 1991 with Suguna group pioneering the model in the country^[15]. With the entry of many other Private players, like Venkateshwara Hatcheries, Skylark Hatcheries, Amrit Hatcheries, Pioneer Hatcheries and Godrej Agrovets this sector is dominated by the organized sector which contributes more than 70% of the total poultry output in the country.^[14]

In countries like India where the small and marginal farmers are more than 80% of the total, there is a risk that the farmers may not be able to actively

participate in the market economy^[2]. Government initiatives have led to address the issue but not to a desirable extent. Contract farming may be considered as a way to provide the farmers the much desired linkage in the form of reliable and cost-efficient inputs including credit and technical know-how as well.

A farmer has to maintain at least 2,000 birds to enter into contract farming. He should have his own land with a shed to maintain chickens. Integrator provides the farmer suggestions on how to construct the shed, besides ensuring proper water and power availability. As the farmers are good at production, the integrator makes them focus on it without investment or working capital, while it takes up the responsibility of supply, sales, and marketing. Integrator even helps farmers in availing bank loans for erection of shelters.^[13]

Study shows the average net return per bird increases with increase in the size of the farm for both the contracting parties. The farmers face problems like delay in supply of inputs, high feed prices, delay in lifting the produce, delay in payment, low price

and sometimes rejection of output apart from low growing charges^[6]. Studies also reveal that poultry integrator benefits from reduction in transaction costs and farmers gets assurance of regular income^[7]. Despite certain constraints, by-and-large, both the contracting parties are satisfied and are willing not only to continue but also to expand the volume of business contract farming^[9].

A number of factors influence the relationship between the integrator and the farmer, the integrator should ensure that the contract produce is more remunerative for the farmer than the competing crop/produce and should base their pricing strategy on the market trends and create incentives for the farmers^[1].

Though the contract farming is more concentrated in Southern states of the country, Gujarat is also leaping towards the contract farming model at a greater rate. And in Gujarat, Anand is standing on first position in terms of poultry population^[3]. On the basis of personal discussion with the industry people, 73% of the broiler farms in Anand district of Gujarat are operating under contract.

With these background information following objectives were undertaken for the study. The reference period for the study corresponds to June-December 2014.

- ♦ To study the poultry contract farming model in detail.
- ♦ To study the current scenario of Poultry contract farming from farmers' perspective.

Materials and Methods

In order to achieve the first objective, officials of the 3 major integrators having presence in Anand district were interviewed for in depth inquiry of the model.

For achieving the second objective, a primary survey of Poultry growers who are engaged in contract farming was undertaken to understand the current scenario in Anand district. For the purpose primary data were collected randomly from 48 contract poultry growers in Anand district. List of contract poultry growers was taken from the integrators having presence in the area. The poultry growers were personally interviewed with pre-structured interview schedule.

Data were analyzed through tabular presentation using mean, frequency and standard deviation. Ranking method was used to analyze the factors responsible for change of integrator. Five points likert scale was used for analyzing the satisfaction level of farmers with the existing integrator.

Results and Discussion

Poultry Contract Farming Model

All the integrators having presence in the study area are following the same model, which is dealt in detail as follows:

In this model, the farmer or the poultry grower contributes land, labour, infrastructure, equipment, water and electricity whereas the integrator or the company provides inputs viz. day old chicks (DOCs), feed, medicines and technical know how.

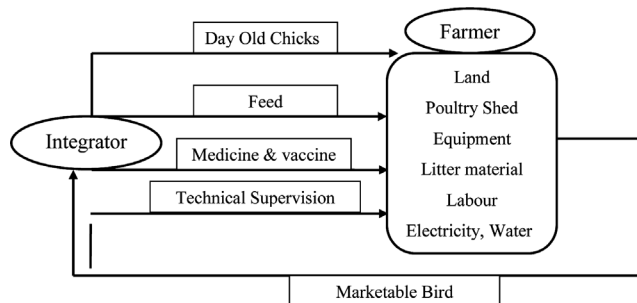


Fig. 1: Poultry Contract Farming Model

All-in-all-out method of farming is adopted. Normally 6 batches of birds are grown in a year. Number of chicks to be supplied depends on the farm capacity. 1ft² area is considered as standard for one bird. Accordingly the total number of chicks to be supplied is calculated. The integrator supplies the feed stock at the time of delivering the chicks at the farm. The quantity of feed stock is based on the estimated consumption during the life span of the birds at the farm which is usually 42 days. Normally the integrator lifts the bird in 42 days. Along with the birds, left over feed is also carried back and weighed to find out the total feed consumption and in turn per bird feed consumption. It is used to calculate the Feed consumption Ratio (FCR) at the farm. The technical support staff consisting of the Veterinary doctor visits the farm on daily basis who is also responsible for maintaining the bird mortality record at the farm and total daily feed consumption at the farm.

All the farmers under contract in the study area keep labourer couple (both spouse) for the farm activities, which includes feeding and watering the birds, cleaning of the premise, removing the dead bird, if any. Normally, a room is provided where the labourer couple stays, so that round the clock service is utilized. After the birds attain the marketable age, the integrator lifts the birds from the farm itself.

The company or the integrator calculates the standard production cost per kg which is based on the following:

- ♦ Cost per chick,
- ♦ Feed cost per kg,
- ♦ Administrative cost per chick, and
- ♦ Medicine cost

The cost of all the inputs are kept constant and does not vary for calculating the standard production cost, which remains same throughout the contract period. This standard production cost varies with integrator.

Farmer receives the standard growing charge per kg of bird as per the pre-agreed rate. This standard growing charge also varies with integrator.

There is provision for incentive. Farmer is entitled for incentive in following cases:

- ♦ If the farmer achieves lower production cost. The total production cost, here, is the sum of standard production cost per kg and the standard growing charge per kg to be paid to the farmer.
- ♦ Market rate increases above benchmark price. The farmer gets a percentage from every rupee increase above the benchmark price. This is declared by the integrator at the time of contract.

Parallel to incentive there is provision for penalty too. The farmer is penalized in the following cases:

- ♦ Mortality higher than standard mortality. Penalty is imposed on the farmer at the rate of cost per chick for the excess mortality.
- ♦ F.C.R. Recovery. The feed conversion ratio is predetermined at the level of 1.75 for all the integrators. It means for gaining 1 kg body weight, the bird should have consumed 1.75 kg of feed. If the F.C.R. exceeds 1.85, it increases

the production cost and in such a situation the integrator deducts the excess feed consumed at the rate of feed cost per kg from the farmer.

- ♦ Shortage recovery. If any shortage of bird is found during liquidation or lifting of the bird, the integrator deducts either of highest realization from sale of bird or the total production cost whichever is higher.

Current Scenario from farmers' perspective

Table 1: Farmers' occupation

Principal Occupation	Subsidiary Occupation	Frequency	Percent
Agriculture (31.25%)	Poultry	15	100.0
	No Subsidiary occupation	16	48.5
Poultry (68.75%)	Agriculture	11	33.3
	Service	6	18.2

Among the sample contract poultry growers, majority (68.75%) have poultry farming as the principal occupation, and rest have agriculture as principal occupation. Nearly half (48.5%) of those with poultry farming as principal occupation have no other source of income. Rest have agriculture (33.3%) and service (18.2%) as subsidiary occupation. For those with poultry farming as subsidiary occupation, agriculture is the principal occupation.

Table 2: Farm capacity and annual income from the farm

Poultry farming as	N	Farm capacity (Bird nos.)		Annual income from the farm (in ₹ Lakhs)	
		Mean	Std. Deviation	Mean	Std. Deviation
Principal Occupation	33	11333	9123.86	4.13	3.57
Subsidiary Occupation	15	7333	1290.99	1.83	0.49
Total	48	10083	7790.02	3.42	3.15

The mean farm capacity for the sample contract farmers in the study area was more than 10,000 birds with mean annual income of ₹ 3.42 lakhs from the farm. Farmers with poultry farming as principal occupation have more farm capacity (11333 birds)

than those with poultry farming as subsidiary occupation (7333 birds).

Table 3: Years in contract farming

Previous Background in Poultry Farming	Percentage		N	Mean	Std. Deviation
No	45.83%	Years in Business	22	3.87	0.73
		Years in Contract Farming	22	3.87	0.73
		Years in Business	26	15.73	8.05
Yes	54.17%	Years in Contract Farming	26	6.89	3.17

More than half of the sample farmers (54.17%) have previous experience of poultry farming as independent grower before entering into contract farming model. But perceiving contract model better than existing independent farming model, moved to contract one. There are cases where poultry farming has been carried down from previous generation. About 45% of the sample farmers entered into the poultry farming as contract grower from the beginning, i.e. without any previous experience of this sector. It is quite obvious from the above that the integrators first targeted the independent growers for contract farming (mean years in contract farming- 6.89 years), then others entered (3.87 years).

Table 4: Reason for entering into Contract Farming (having previous experience)

Factors	Frequency	Percent
Price Stability	18	69.23
Market Certainty	13	50
Provision of Input on Credit	8	30.77
Neighbour gaining high income	3	11.54

Above tables depict various reasons for entering into contract farming. Farmers with experience as independent poultry grower attributed price stability as the biggest factor which influenced towards contract farming model (~70%), apart from

market certainty (50%) and credit facility in kind (~31%). All the farmers have earlier experienced loss as independent poultry grower in many batches of the broiler either due to increase in input cost particularly feed and day old chicks or due to slump in the market rate of the broiler.

Table 5: Reason for entering into Contract Farming (without any previous experience)

Factors	Frequency	Percent
Income opportunity	19	86.36
Low working capital cycle	9	40.91
Additional income opportunity	3	11.54

Majority with no previous experience of poultry farming attributed good income opportunity as a factor for entering into contract farming model. These growers realized that carrying out poultry farming as independent grower will necessitate technical knowledge, which is not required in case of contract farming, as the same is provided by the integrator. As compared to other businesses, in this business gestation period for sale, or working capital cycle is less which is only 42 days, money gets quickly realized, which attracted good number of contract farmers.

Table 6: Change of integrator

	Frequency	Percent
Yes	42	87.5
No	6	12.5
Total	48	100.0

The contract agreement term is for 3 years in case of all the integrators. Even though majority (87.5%) of the poultry growers revealed that they changed the integrator in the past before the expiry of the contract agreement. Only few continued with the integrator with whom they got associated for the first time.

As the majority of the farmers never continued with the same integrator, and shifted from one to other because of one or other reason, the duration of association with one integrator never reached 3 years. Many farmers re-contracted with the same integrator after experiencing the others.

Table 7: Duration of Association with integrators (for those which changed integrators)

	N	Mean	Std. Deviation
Duration of association with last Integrator (years)	42	2.29	1.86
Duration of association with second last Integrator (years)	42	1.40	0.86
Duration of association with third last Integrator (years)	31	1.44	0.43
Overall mean duration of association (years)	115	1.73	1.33

The mean of duration of association with one integrator came out to be 1.73 years.

Table 8: Reason for Change of integrator

Factors	Points	Rank
Less growing charge	161	1
Low rate incentive	129	2
Company official behaviour	118	3
High FCR	92	4
High mortality	49	5

The farmers were asked to rank the above 5 pre-identified factors which they led to change of integrator. These factors were identified on the basis of pilot survey conducted for the same purpose in the study area. Five points were allotted for each first rank, four for each second rank and so on, down to one point for each fifth rank. Cumulative points for each factor were calculated based on the ranks awarded to each by the farmer.

The standard growing charge of other integrator lures the farmer to change the current integrator and it was ranked high, followed by the incentive

factor. Company officials' behavior also plays role to certain extent. Other factors like information from peer farmers about less mortality and less FCR of other integrator makes them to change. Farmers were of the opinion that from all the integrators they have more or less same net income. For integrator having higher standard growing charges, the rate incentive use to be less and vice versa.

For those, who had the previous experience of poultry farming as an independent poultry grower as well as those without any poultry farming experience, the incentive, timely payment and weight measurement are rated very high. For technical advice, experienced farmers opined that the technical person deputed by the company does not know well and they themselves are quite capable and aware of the best way of poultry farming. Contrary to this, non-experienced farmers praised the system of every day visit of the company technical person to their farm and advising them for feed and medicine aspects along with other better management approaches.

Conclusion and Policy Implication

Like other agricultural crops, poultry sector has also been witnessing a shift towards contract farming, the share of which is increasing year by year. Poultry growers in Anand district have also accepted this model in a huge way as is evident by huge increase in share of contract farming than non-contract one in the recent past. Poultry growers are entering into contract farming model as they find it better in terms of assured market and price stability, though they keep on changing the integrator looking for better growing charges.

Table 9: Satisfaction with the existing integrator

Parameters	Previous experience as Non-Contract Grower	Rate 5 (Very good)	Rate 4 (Good)	Rate 3 (OK)	Rate 2 (Poor)	Rate 1 (Very poor)
Incentive Received	Yes	80%	20%	0	0	0
	No	25%	25%	0	0	50%
Timely Payment	Yes	80%	20%	0	0	0
	No	75%	25%	0	0	0
weighing of Birds	Yes	100%	0	0	0	0
	No	100%	0	0	0	0
Technical advice	Yes	0	0	0	40%	60%
	No	75%	25%	0	0	0

The increase in Contract farming in the sector necessitates a legal framework in the line of other agricultural crops to be developed to ensure a well-developed poultry sector.

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References

- [1]Birthal, P.S. 2008. *Making Contract Farming Work in Small holder Agriculture*. National Centre for Agricultural Economics and Policy Research. New Delhi.
- [2]FAO. 2001. *Contract Farming- Partnerships for Growth*. Agricultural Services Bulletin no. 145, Rome.
- [3]GOG. 2007. Summary Report of Eighteenth Livestock Census-2007. Directorate of Animal Husbandry, Gandhinagar, Gujarat.
- [4]GOI. 2012. *19th Livestock Census-2012- All India Report*, Department of Animal Husbandry, Dairying and Fisheries, Ministry of Agriculture, New Delhi.
- [5]IFPRI. 2006. *Efficiency and Distribution in Contract Farming: The Case of Indian Poultry Growers*, MTID Discussion paper No. 91, International Food Policy Research Institute, Washington, DC.
- [6]Kalamkar, S.S. 2012. Inputs and Services Delivery System under Contract Farming: A Case of Broiler Farming, *Agricultural Economics Research Review* **25**: 515-521.
- [7]Murthy, M.R.K. and Madhuri, S.B. 2013. A Case Study on Suguna Poultry Production through Contract Farming in Andhra Pradesh. *Asia Pacific Journal of Marketing & Management Review* **2**(5).
- [8]NABARD. 2005. *Contracting Farming as means of Value-Added Agriculture*, Occasional Paper No. 42, National Bank for Agriculture and Rural Development, Mumbai.
- [9]Navadkar, D.S., Amale, A.J. and Yadav, D.B. 2012. Gains of Value Chain through Poultry Contract Farming. *Agricultural Economics Research Review* **23**: 560.
- [10]Singh, S. 2000. Contract Farming for Agricultural Diversification in the Indian Punjab: A Study of Performance and Problems, *Indian Journal of Agricultural Economics*, **56**(3): 283-294.
- [11]Sowmiya, G. *et al.* 2014. The Factors which Influences Rural Farmers to Start Contract Broiler Poultry Farming in Coimbatore District, India. *Pollution Research*. **33**(1): 215-218.
- [12]Sridharan, A. and Saravanan, R. 2013. A Study on Farmers' Reasons to Enter into Poultry Farming with Special Reference to Suguna Broiler Contract Farms in Coimbatore District. *Zenith International Journal of Business Economics & Management Research*. **3**(4): 303-313.
- [13]Subramani, M.R. 2010. Poultry cos adopt carrot and stick policy in contract farming, *The Hindu Businessline*, Retrieved from <http://www.thehindubusinessline.com>
- [14]Ullek, N.P. 2012. How chicken can cost India big. *Economic Times*, Retrieved from <http://articles.economictimes.indiatimes.com>
- [15]http://www.sugunapoultry.com/about_suguna/overview/milestones.asp accessed on 30 Jan, 2015.