Constraint Analysis of Contract and Non Contract Broiler Farming in Western and North Western Zones of Tamil Nadu

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Abstract

Broiler farming in India is also one of the major profitable industries which can effectively tackle the problems of unemployment and under employment. The present study has identified and ranked the constraints in contract and non contract broiler farming in western and north western zones of Tamil Nadu. The data was collected from 40 contract and 40 non contract commercial broiler farms in Namakkal, Krishnagiri, Coimbatore and Tiruppur districts. The data was analysed by using Garrett's ranking technique. The most significant constraints faced by contract broiler farmers were delay in supply of inputs and payments with a mean score of 59.10 and the most significant constraints faced by non contract broiler farmers were seasonal stagnation of birds and price fluctuation (52.28 mean score) and followed by low market price for birds due to middleman exploitation, high input cost, high mortality rate, lack of availability of finance and lack of marketing facilities.

Key words: *Constraints, Contract, Non contract and Broiler farming*

Introduction

The poultry sector in India has undergone paradigm shift in structure and operation. A significant feature of India's poultry industry has been its transformation from a mere backyard activity into major commercial activity in just about four decades. Within a span of 25 years, the egg production has gone up to 70 billion from few millions and the broiler production has gone to 3.8 million tonne from now here. The commercial poultry sector contributes almost 85 per cent of the total poultry meat output. The growth is 6-8 per cent in layers and 10-12 per cent in broilers per year against the growth of other structures. India is the third largest egg producer after China and USA and the fourth largest chicken producer after China, Brazil and USA. According to the 19th livestock census (2012), the total poultry population (chicken, duck, turkey and others) in the country has increased by 12.39 per cent over the previous census and the total poultry population in the country was 729.2 million in 2012. Total poultry population of Tamil Nadu is 117.3 million accounting for 17.71 per cent of the total poultry population in the country.

Broiler farming in India is also one of the major profitable industries which can effectively tackle the problems of unemployment and under employment in the rural areas, particularly small and marginal farmers. Over the last 3 decades it made a quantum leap from backyard venture to dynamic industry due to poultry integration, automation in managemental practices and feed formulation

technologies. The major development in Indian poultry industry is the spread of integration, especially in broiler production particularly in southern and western parts viz., Tamil Nadu, Karnataka, Andhra Pradesh and Maharashtra.

Contract farming offers the guarantee in supply of good quality chicks, feed, veterinary services and market outlet for the small holder producers, in exchange for the guarantee of supply of marketable birds through its intermediary. Contract farming arrangements are often criticized for being in favor of firms or large farmers, while exploiting the poor bargaining power of small farmers and the integrators were not paying the growing charge proportionate to their profit during high demand. However in non contract farming farmers perceived many problems like non remunerative price for marketable birds, high feed cost, middleman exploitation, etc., Hence, the present study was carried out to identify the constraints in contract and non contract broiler farming in western and north western zones of Tamil Nadu.

Methodology

For the present study the data were collected from western and north western zones of Tamil Nadu since these zones have high concentration of broiler farms both in contract and non contract basis. Namakkal and Krishnagiri districts were selected from north western zone and Coimbatore and Tiruppur districts were selected from western zone purposively because of their unique contribution to broiler population of the state.

Forty contract farms were selected from Namakkal and Tiruppur districts and 40 non contract farms were selected from Krishnagiri and Coimbatore districts, thus constituting a total sample size of 80 broiler farms. The required primary data were collected through a well-structured and pre-tested interview schedule and the sample respondents were interviewed personally. Data regarding constraints in contract and non contract broiler farming were collected separately.

Garret's ranking technique

The respondents were asked to rank the identified constraints and limiting the most. The order of merit thus given by respondents was converted into ranks by using Garret's ranking technique and the following formula was used to obtain per cent position for each rank

$$\text{Per cent position} = \frac{100\ (R_{ij} - 0.5)}{N_j}$$

Where,

R_{ij} - Rank given for 'i'th factor by 'j'th individual

N_j - Number of factors ranked by 'j'th individual

The per cent position of each rank thus obtained was converted into scores by referring the table given by Garret and Woodworth (1969). Thus for each factor, the scores of individual respondents were added together and divided by the total number of respondents from whom scores were added. These mean scores for all the factors were arranged in descending order, ranks were given and the most limiting factor was identified accordingly.

Results and Discussion

Constraints in contract commercial broiler farming

Table 1 displays the constraints faced by contract broiler farmers in the study area. Delay in supply of inputs and payments was ranked as first constraint with a mean score of 59.10, followed by low rearing charge (52.28), non refundable costs involved (43.30), high capital investment (42.50), commercial tariff for electricity (41.33), additional labours cost (36.40), improper supply of inputs (31.58), more number of culled birds left at the end (30.30), lack of awareness about farm management (18.45) and others (18.28) such as seasonal water scarcity, labour unavailability, disease incidence etc.,

Among the constraints identified in contact broiler farming in the study, delay in supply of inputs and payments is in accordance with the findings of Prasad (2005), Kathirchelvan (2010), Kalamkar (2012) and Gopala *et al*. (2015). Low rearing charge per bird is in agreement with Tamizhselvi and Rao (2009) and Kalamkar (2012). The constraint of charging electricity at the rate of commercial tariff is in accordance with the result of Gopala *et al*. (2015). The constraint of high capital investment is in accordance with findings of Mohanraj and Manivannan (2012) and Rifky (2016). The constraint of lack of awareness about farm management is in contrary with findings of Mohanraj and Manivannan (2012) which is ranked as least constraint in the present study.

Table 1: Constraints in contract broiler farming

S. No	Constraints	Total farms (N=40)		
		Sum of scores	Garrett's score	Rank
1.	Low rearing charge	2091	52.28	II
2.	Disease incidence	1263	31.58	VII
3.	Delay in supply of inputs and payments	2364	59.10	I
4.	High capital investment	1700	42.50	IV
5.	Lack of awareness about farm management	738	18.45	IX
6.	Non refundable costs involved	1732	43.30	III
7.	Additional labours cost	1456	36.40	VI
8.	More number of culled birds left at the end	1212	30.30	VIII
9.	Commercial tariff for electricity	1653	41.33	V
10.	Others	731	18.28	X

Constraints in non contract broiler farming

Data presented in Table 2. on constraints in non contract broiler farming in the study area revealed that, Seasonal stagnation of birds and price fluctuation (52.28), Low market price for birds due to middleman exploitation (50.15), High input (chicks, feed and medicine) cost (44.60), High mortality rate (43.95), Lack of availability of finance (43.95), Lack of marketing facilities (35.23), Water shortage (34.63), Low market price for birds (31.90) and Inadequate labour

(30.13). Among the constraints perceived in non contract broiler farming, high chicks, feed and medicine cost is in agreement with findings of Naidu *et al*. (2002), Areerat *et al*. (2012) and Kalamkar (2012). Constraint of price fluctuation and high mortality is in accordance with findings of Mane *et al*. (2007), Zakir (2008), and Gopala *et al*. (2015). Constraint of high investment and lack availability of finance is in agreement with findings of Nath *et al*. (2012) and Onuk *et al*. (2016). The constraint of lack of marketing facilities is in agreement with findings of Selvakumar *et al*. (2006).

Table 2: Constraints in non contract broiler farming

S. No	Constraints	Total farms (N=40)		
		Sum of scores	Garrett's score	Rank
1.	High input (chicks, feed and medicine) cost	1784	44.60	III
2.	Inadequate labour	1205	30.13	IX
3.	High initial investment and lack of availability of finance	1486	37.15	V
4.	Water shortage	1385	34.63	VII
5.	High mortality rate	1758	43.95	IV
6.	Lack of knowledge about managemental practices	1276	31.90	VIII
7.	Lack of marketing facilities	1409	35.23	VI
8.	Seasonal stagnation of birds and price fluctuation	2091	52.28	I
9.	Low market price for birds due to middleman exploitation	2006	50.15	II
10.	Others	0	0.00	X

Conclusion

Broiler industry in India is presented as success story due to progressive increase in production and exports over the last decades. The result of this study indicates that the major constraints faced by non contract broiler farmers were price fluctuation due to seasonal stagnation of bird and low price for marketable birds due to middle man exploitation. Therefore proper market infrastructure like farmer's cooperative societies has to be created by the government to avoid the risk encountered by the farmers. Constraints like high input cost and high initial investment can be minimised by the government by providing subsidies and loans at lower interest rates to the farmers. High mortality rate and disease incidence can be avoided by selection of good quality chicks and better managemental practices like brooding, disinfection and sanitization.

Though the contract farmers are insulated from managemental and marketing risk, they faced the problem of delay in supply of inputs and payments in turn leads to less batches per year and low annual income. Most of the farmers were not satisfied with the rearing charge paid by the contractors. Hence the contractors should pay compensation to the farmers if there is delay in supply of inputs and remunerative growing charges. Charging electricity at the rate of commercial tariff

is also a constraint faced by contract farmers. This can be minimised by charging subsidised tariffs for electricity similar to agriculture.

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