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Amit Kumar Singh

MVSc Scholar Division of
Extension Education
ICAR- Indian Veterinary
Research Institute, Izatnagar,
Bareilly, Uttar Pradesh, India

MP Sagar

Principal Scientist
Division of Extension Education
ICAR- Indian Veterinary
Research Institute, Izatnagar,
Bareilly, Uttar Pradesh, India

Jitendra Pratap

PhD Scholar Division of
Extension Education
ICAR- Indian Veterinary
Research Institute, Izatnagar,
Bareilly, Uttar Pradesh, India

AK Chaturvedani

PhD Scholar Division of
Extension Education
ICAR- Indian Veterinary
Research Institute, Izatnagar,
Bareilly, Uttar Pradesh, India

Correspondence

AK Chaturvedani

PhD Scholar Division of
Extension Education
ICAR- Indian Veterinary
Research Institute, Izatnagar,
Bareilly, Uttar Pradesh, India

Contract broiler farming system in eastern plain zone of Uttar Pradesh

Amit Kumar Singh, MP Sagar, Jitendra Pratap and AK Chaturvedani

Abstract

The present study was conducted on sixty broiler farmers randomly selected from four blocks of Azamgarh and Varanasi districts of Uttar Pradesh, to analyse the structure and functioning of contract farming in broiler production, and to identify the factors which propel the farmers to enter into contract broiler farming. The information was collected with the help of a pre-tested structured interview schedule. The results revealed that cent-percent farmers adopted “formal production-marketing contract” and all the three Integrators prevailing in the study area having all most similar contractual arrangement with difference in price of input services, growing charges and growing cost. The contract farmers typically provide land, housing, equipment, labour and electricity. While Integrators provide day old chicks, feed, veterinary services, supervisory services and transportation facilities to the farmers. Working capital support in the form of inputs and risk reduction are the major motivating factors for the farmers to enter into contract broiler farming.

Keywords: Contract farming, motivating factors, integrators, risk reduction, formal production-marketing contract

Introduction

The Indian poultry sector with 7.3 percent growth in poultry population, has witnessed one of the fastest growing sectors, with annual growth of about 8 percent in eggs and 10 percent in meat production, over the last decade (2003-2013) amongst all animal based sectors (CARI vision 2050). The high growth has placed India at 3rd position in egg production after China and USA with a production of 75 billion eggs and 5th position in chicken meat after USA, China, Brazil and Mexico (Kornel, 2008) with a production of 3.7 million metric tons of chicken meat. Poultry industry contributes about Rs. 600 billion, accounting for about 0.77 percent of the national GDP and about 10 percent of the livestock GDP and provides employment to over five million people in the country (CARI vision 2050) [3]. The country exported 4.3 lac million metric tons of poultry products to the world for the worth of Rs. 565.87 crores during the year 2013-14. (APEDA). Despite such progress, the average per capita availability is still merely 55 eggs and 2.8 kg of poultry meat against the recommended level of 180 eggs and 11 kg meat per annum.

Uttar Pradesh, in spite of its large human population, contributed just around 2.56 percent of the country's poultry population. Out of the total poultry population of 18.66 million, the farm poultry constitutes 10.32 million birds (19th Livestock Census, 2012) [5]. During the period 2007-2012 poultry population in the state had grown from 17.8 millions to 18.66 millions and egg production from 98.15 crores to 181.223 crores. (SDAH, Uttar Pradesh, 2013) [9]. It is much needed to priorities poultry development in the animal husbandry sector as egg production of the state was 181.223 crores per year, while the consumption is 473 crores per year. This huge gap in demand and supply of about 292 crores per year was met by the private sector through procuring nearly one crore eggs daily from other states. Similarly, the requirement of chicken meat was met through purchasing an approximately 10 crore day old broiler chicks from other states, annually. As per the recommendations of the Indian Nutritional Academy, Hyderabad, there should have been consumption of 182 eggs per head per annum as standard. At National level 55 eggs per person are consumed annually, while the state average is 22 eggs per person annually. Similarly, the standard suggested for chicken meat consumption is 11 kg, while the national availability is 2.8 kg and for U.P, it was 0.987 kg per head per annum (SDAH, Uttar Pradesh, 2013) [9].

The poultry sector is, however, highly prone to production and market risks, which periodically affect the profitability of broiler production, particularly on the small farms.

These risks also threaten the profitability of the industry engaged in breeding of chicks and manufacturing of feed, vaccines and medicines. In order to minimize the risks to the producers and sustain the profitability of the industry, some large poultry firms (for example, Venkateshawara Hatcheries Ltd., Suguna Hatcheries, Pioneer Hatcheries, Diamond Hatcheries, etc.) began integrating their activities with that of broiler production through the institution of contract farming. A contract farming arrangement in broiler production, referred to as “chick growing agreement” is generally a wage contract between an Integrator, who supplies the intermediate inputs and procures the output, and a poultry farmer, who provides the primary inputs in the production process. The Integrator provides the growing stock (DOCs; fatteners), feed, veterinary supplies and services, and implements the final marketing of the output. The contract farmer typically provides the space and facilities (land and housing), equipment, utilities, labours (family and/or hired) and day-to-day farm management. Thus, the major component of working capital is borne by the Integrator and He is the absolute owner of movable stocks in the farm. The farmer receives a guaranteed wage or growing charges for each live bird based on its live weight in a condition that is predetermined and agreed upon through contractual obligation (South Asia pro-poor livestock policy program, 2009) [7]. It is estimated that in India 90 percent of the poultry in the Southern region, 80 percent in the Western region, 70 percent in the Eastern region and 10 percent in the Northern region were under a vertically integrated system (Rajan 2006) [6].

This shows that contract broiler farming is well developed in Southern states but, in Northern states like Uttar Pradesh, contract broiler farming is in its developing stage. So the present study was conducted to analyze the structure and functioning of contract in broiler production in eastern plain zone of Uttar Pradesh.

Materials and Methods

For the present study, two districts Azamgarh and Varanasi were selected purposely, out of 12 districts of the eastern plain zone of Uttar Pradesh, on the basis of poultry population. Four blocks, two from Azamgarh (Mahrajganj and Bilariyaganj) and two from Varanasi (Kashi Vidyapeeth and Pindra) were selected, randomly. From each block, a list of contract poultry farmers was prepared. From each list 15 contract broiler farmers having at least 2000 birds and two years of experience in contract broiler farming were selected randomly. This makes total sample size sixty.

The data was collected with the help of a pre-tested structured interview schedule. Henry Garret ranking analysis was used for the ranking of motivating factors.

Result and Discussion

Prevailing systems of contract in broiler farming in the study area

Table 1 indicates that cent-percent farmers adopted “formal production-marketing contract”. No farmers had adopted the “formal-input marketing contract” and “informal output marketing contract”.

Table 1: Distribution of poultry farmers, according to prevailing systems of contract broiler farming

Prevailing systems of contract broiler farming	Frequency	Percentage
Formal production –marketing contract	60	100
Formal input marketing contract	0	0.0
Informal output marketing contract	0	0.0

Comparative analysis of the Integrators engaged in contract broiler farming in the study area

In the study area, three types of Integrators of contract broiler farming were found in operation which were based on “formal production-marketing contract system”

The Integrator-I select the farmers on the basis of their farm location i.e there should be road connectivity and farm of at least two thousand birds capacity. Other criteria for selection of farmers include farmers own voter ID, PAN card, bank account with cheque book. In case of Integrator-II and III the selection criteria was similar as Integrator-I. All the three Integrators provide inputs chick, feed, health care services and supervisory services to their clients, Jabbar *et al.* (2007) [4] reported the similar findings. Cost of chicks, feed and health care services in case of Integrator-I was Rs 21.5/chick, 28 /Kg and 2 per bird respectively, In case of Integrator-II the rate of these inputs were Rs 27.65/chick, 26.75/Kg and 1.5 per bird, respectively. While Integrator-III provide these inputs at the rate of Rs 23/chick, 27.95/Kg and 1.5 per bird, respectively. Growing charges (the amount paid to the poultry farmers for rearing chicks) given to the farmers in case of Integrator-I was

Rs 5.80 per kg of live birds on the growing cost of Rs 63.50 per Kg of live birds. While, in case of Integrator-II and III it was Rs 5.80 and Rs 5.40 per Kg of live birds, on the growing cost of Rs 69 and 67 per Kg of live birds respectively. The monitoring mechanism of all the three Integrators was daily supervision by the supervisors. Integrator-I and II, ensure their product quality by visual inspection while there is no criteria set by the Integrator-III for ensuring their products quality. Integrator-I settle any dispute with farmers either by police or court, Integrator-II by social and legal methods, whereas Integrator-III had no such devices for settling disputes with farmers. Integrator-I insured their farmers for mortality rates up to 5.5 percent, while in case of Integrator-II and –III it was 5 percent, beyond that the farmer had to bear the risk of loss. There was 50:50 sharing of benefit if a farmer produces the chicken on less growing cost as set by the Integrators but if growing cost exceeds than the set cost, the loss was beared by the farmers only. If the market price of chicken is more than Rs 70, then 20 paisa per rupee was given to the farmers as incentive.

Table 2: Contract arrangement of different Integrators prevailing in the study area

+Particulars	Integrator-I	Integrator-II	Integrator-III
Type of organization	Private limited company	Private limited company	Private limited company
Form of contract arrangement	Formal production–marketing	Formal production–marketing	Formal production–marketing
Criteria for selecting the farmers	Farm location, shed condition, farmer has their own account number, voter ID, PAN card and cheque book	Road, communication, farmer has their own account number, voter ID, PAN card and cheque book	farmers have their own account number, voter ID, PAN card and cheque book
Inputs/services provided by the Integrators	Chick, feed, health care services and supervisory services	Chick, feed, health care services and supervisory services	Chick, feed, health care services and supervisory services
Price of input services	Chicks Rs21.5/chick feed 28/Kg, health care services (medicine +vaccine) Rs2/bird	Chicks Rs27.65/chick feed 26.75/Kg, health care services (medicine +vaccine) Rs1.5/bird	Chicks Rs23/chick feed 27.95/Kg, health care services (medicine +vaccine) Rs1.5/bird
Price of output (price of live weight of birds)	Rs 5.80/Kg on the growing cost of Rs 63.50	Rs 5.80/Kg on the growing cost of Rs 69	Rs 5.40/Kg on the growing cost of Rs 67
Monitoring mechanism	Daily supervision by the supervisor	Daily supervision by the supervisor	Daily supervision by the supervisor
Systems of ensuring product quality	Visual inspection	Visual inspection	There is no provision of ensuring product quality
System of settling dispute	By police, by court	Social and legal	There is no provision of settling disputes
Sharing of risk	Mortality was limited up to 5.5 percent. Beyond that the farmer has to bear the risk of loss.	Mortality was limited up to 5 percent. Beyond that the farmer has to bear the risk of loss.	Mortality was limited up to 5 percent. Beyond that the farmer has to bear the risk of loss.
Sharing of profit and loss	If the production cost is less than Rs 63.50 then there is 50:50 sharing of benefit between Integrator and farmer and If the farmers produce the chicken on more cost as set by Integrator then the loss was beared by the farmers only. If the market price of chicken is more than Rs70 then 20 paise per rupee was given to the farmers as incentive.	If the production cost is less than Rs 69 then there is 50:50 sharing of benefit between Integrator and farmer and If the farmers produce the chicken on more cost as set by Integrator then the loss was beared by the farmers only. If the market price of chicken is more than Rs70 then 20 paise per rupee was given to the farmers as incentive.	If the production cost is less than Rs 67 then there is 50:50 sharing of benefit between Integrator and farmer and If the farmers produce the chicken on more cost as set by Integrator then the loss was beared by the farmers only. If the market price of chicken is more than Rs70 then 20 paise per rupee was given to the farmers as incentive.

Sharing of responsibility between contractor and farmers

The sharing of responsibilities between contract farmers and integrator in the contract farming system is shown in table 3. The contract farmers typically provide land, housing,

equipment, labour and electricity. Integrator provides day old Chicks, feed, health care services, supervisory services and transportation facilities to the farmers. Jabbar *et al.* (2007) [4] reported the similar findings.

Table 3: Sharing of responsibility in broiler farming between the contract farmer and contractor

Particulars	Contractor	Contract Farmer
Land, buildings and equipment	X	√
Manure handling, storage and disposal	X	√
Day-old chicks	√	X
Feed ingredients, processing and delivery	√	X
Fuel, electricity and telephone	X	√
Maintenance and repair	X	√
Veterinary services and medicine	√	X
Transportation cost of all inputs and outputs	√	X
Labour: production and maintenance	X	√
Labour: supervisory and specialists	√	X

Motivating factor to enter into contract broiler farming

The distribution of the different categories of respondents based on the priorities regarding the motivating factor to enter into contract broiler farming is presented in the table 4. In order to understand the various motivating factors, which

propelled the farmers to undertake contract broiler farming, various factors were considered and the Henry Garrett ranking method has been applied and the details of Garret points and mean is presented below.

Table 4: Motivating factors to enter into contract poultry farming

Motivating factors	Total score	Mean score	Rank
Risk reduction	3219	53.65	II
Assured marketing by Integrators	2702	45.03	V
Assured income	2851	47.52	III
Adequate knowledge support on broiler farming by integrators	2771	46.18	IV
Working capital support	3672	61.2	I
Health care support	2678	44.63	VI

It could be seen from the table 4 that the motivating factor to enter into contract of broiler farming of the respondents that the “Working capital support” was ranked first with a score 61.20 Garrett points. “Risk reduction” was the second rank with a score of 53.65 points. “Assured income” was the third rank with a score of 47.52 points. “Adequate knowledge support on broiler farming by Integrators” was the fourth rank with a score of 46.18 points. “Assured marketing by Integrators” was the fifth rank with a score of 45.03 points. “Health care support” was the sixth rank with a score of 44.63 points. Hence, the obvious reason, “Working capital support” is the major motivating factor for the poultry farmers to enter into contract broiler farming. Similar findings were also reported by Begum (2005) ^[2] and Sridharan *et al.* (2013) ^[8]

Conclusion

Cent-percent farmers adopted “formal production-marketing contract” and all the three Integrators prevailing in the study area having almost similar contractual arrangement with difference in price of input services, growing charges and growing cost. The contract farmers typically provide land, housing, equipment, labour and electricity. While Integrators provide day old chicks, feed, veterinary services, supervisory services and transportation facilities to the farmers. Working capital support in the form of inputs and risk reduction are the major motivating factors for the farmers to enter into contract broiler farming.

References

1. Agricultural and Processed Food Products Export Development Authority (APEDA). Animal Products, 2013.
http://apeda.gov.in/apedawebsite/six_head_product/animal.htm
2. Begum IA. An assessment of vertically integrated contract poultry farming: a case study in Bangladesh. *Int. J Poultry Sci*, 2005; 4(3):167-176.
3. Central Avian Research Institute (CARI). Perspective Plan Vision, 2050, 2013.
4. Jabbar MA, Rahman MH, Talukder RK, Raha SK. Alternative institutional arrangements for contract farming in poultry production in Bangladesh and their impacts on equity. *International Livestock Research Institute, research report*, 2007, 7.
5. Nineteenth livestock census all India report. Ministry of Agriculture Department of Animal Husbandry, Dairying and Fisheries Krishi Bhawan, New Delhi, 2012.
6. Rajan BS. Vertical Integration at Suguna Broiler Farms - A Critical look at pro poor livelihood issues: case study. *South Asia pro poor livestock policy programme*, 2006.
7. SAPPLPP. Vertical Integration at Suguna Poultry Farms- A Critical Look at Pro-Poor Livelihood Issues, Case Study SAGP 12, South Asia Pro Poor Livestock Policy Programme, A joint initiative of NDDB and FAO, 2009. (sapplpp.org/informationhub/files/SAGP12CaseStudy.pdf).
8. Sridharan A, Saravanan R. A study on motivating factors to enter into poultry farming with special reference to Suguna broiler contract farms in Coimbatore district. *Int. J Market. Finan. Serv. Manage. Res.* 2013; 2(4):109-117.
9. State department of animal husbandry, Uttar Pradesh annual report, 2013.