

Socio Economic Analysis of Broiler Farms in Perambalur District of Tamil Nadu State

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Authors' contributions

This work was carried out in collaboration among all authors. Author MK designed the study, performed the statistical analysis, wrote the protocol and wrote the first draft of the manuscript. Authors SP and RS managed the analyses of the study and managed the literature searches. All authors read and approved the final manuscript.

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ABSTRACT

The study was conducted to identify the socioeconomic status, assess costs and returns of broiler farms in Perambalur District of Tamil Nadu state in India. The primary data were collected from 30 respondents through face to face interview during the period between November 2019 and January 2020. The results of the study revealed that most of the respondents were male belonging to old age category. Majority of the respondents were running broiler business as a main occupation and highly depended on institutional sources of finance. Major share of the respondents were spending higher amount to the input. The farmers were spending their amount for purchasing of lights, roof material, drinker, feeder etc. Government should initiate various schemes for the upliftment of poultry sector. Low cost vaccine and medicines may be provided by the government to the growers which will minimize the variable cost. If all the above suggestions are implemented by the concerned authorities, the broiler farming will move in the right direction and the farmers will get good income.

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1. INTRODUCTION

Poultry occupies a unique position in the livestock economy of India. With a vibrant indigenous industry compared to other developing countries, it is the world's fastest growing poultry industry and one of the fastest growing agri-business activities in India. India occupies third place in the world egg production and is among the twenty top producers in the world in broilers. Indian poultry industry provides direct and indirect employment to over 4 million people, particularly in rural areas, and contributes about Rs. 40,000 crore to the national GDP. There are few segments in poultry industry, comprising layers and broilers. Layers are chicken reared specifically, for production of eggs. Layers in India have registered an annual compounded growth rate of around 7% for the past three decades. Broilers are pumped with vitamins and proteins and are reared specifically for meat and have a life cycle of 6-7 weeks before they are sold as quality chicken for meat.

Poultry business is attractive as any other business and is a home-farm enterprise. It plays an important role in converting grain and other products into eggs and poultry meat for the nontraditional benefit of mankind. Agriculture and poultry are interdependent as the cereals form part of feed for poultry and poultry wastages are inputs for agriculture. Poultry production can play a significant role to raise the economic status of the rural masses, improve their level of nutrition and also generate employment opportunities. Poultry farming is relatively easier and quicker and can be adapted to a wide range of climatic conditions and can generally be conveniently carried out with other farm activities like crop production, dairying and sheep rearing.

In earlier years broiler farms had produced on an average a few hundred birds (200-500 chicks) per cycle of 40 days. Today units produce minimum of 5,000 birds per unit 5000 to 50,000 birds per cycle are common. The study would look into socio economic characteristics of broiler farmers and financial aspects of broiler farming in Perambalur District of Tamil Nadu state.

2. MATERIALS AND METHODS

The study was based on field survey of farmers who are practicing boiler farming in Perambalur

District of Tamil Nadu, India. It was purposively selected because of their contribution in poultry and also agricultural oriented rural life where people have started taking broiler production on commercial basis to supplement their income. The primary data was collected from 30 respondents using pre tested questionnaire through face to face interview with the respondents between November 2019 and January 2020. The primary data regarding to general demographic characteristics, cost details regarding different aspects of broiler farms were also collected and analysed using the same technique collected were analysed using percentage analysis.

3. RESULTS AND DISCUSSION

The demographic details, cost associated in broiler production and expenditure incurred in broiler farming were analyzed and the results are presented in the following headings.

3.1 Socio Economic Characteristics of the Broiler Farmers

Majority of the respondents (50%) were between 41-50 years old followed by 31-40 years (26.67%) and all the respondents were male. The results were correlated with that of [1], respondents whose ages ranged from 41 to 50 years dominated the farming population (27.91%), following by those of 31-40 years age bracket (25.58%). The sample respondents were educated and it is easy to give trainings and create awareness among the respondents. The sample respondents were running their farm as an individual (93.34%) followed by partnership mode [2]. The sample respondents were doing the poultry business as main occupation, while 46.67% of the sample respondents were running the farm for additional income [3] and [4]. Out of 30 respondents, 20 (60%) were medium farmers having 2.5-5 acres of land, while the remaining 26% of sample respondents were marginal farmers.

3.2 Financial Details of the Respondents

The sources of fund to start poultry unit among the respondents were analyzed and found that majority of the sample respondents (90%) got the capital from financial institutions, while 10 percent of the respondents were incurred from their own sources (Table 1 and Table 2).

Most of the respondents (77%) got their capital from commercial banks like Indian Overseas Bank, Indian bank while 18.51 per cent of the sample respondents were benefited through Regional Rural Bank. Similar results were found in [5]. They stated that the poultry farmers in Nammakkal district were financially sound and few of them forced to rely on institutional and non-institutional source of credit due to the limited credit facility extended by the financial institutions.

Majority of the sample respondents (93.33%) got their fund as Agricultural loan. While 6.67% of the sample respondents got their fund through other modes like gold loan, mortgage loan which is utilized for agricultural purpose (Table 3).

3.3 Amount of Loan Availed

Present study found that around 78.6 percent of the sample respondents got a loan amount of Rs.

2 to 5 lakhs, while 21.4 percent of Sample respondents were benefited with a loan amount of 1 lakh (Table 4).

3.4 Cost Associated with Broiler Production

3.4.1 Input purchased per month

Amount spent for input purchase per month by the sample respondents having direct relationship with the sale of the broiler farming. It was found that 60 percent of the sample respondents spent Rs 1,000- Rs 3,000 for purchasing inputs for poultry farming per month, while 26.67 percent of the sample respondents spent less than Rs. 1,000 for purchase of inputs. Major share of the respondents were spent higher amount to the input. The farmers were spending their amount for purchase of lights, roof material, drinker, feeder etc. (Table 5).

Table 1. Source of finance (n=30)

S. No	Source of finance	No. of. respondents	Percentage
1.	Own	03	10.00
2.	Financial Institution	27	90.00
Total		30	100.00

Source: Primary Data

Table 2. Sources of institutional finance (n=27)

S. No	Particulars	No. of. respondents	Percentage
1.	Commercial Bank	21	77.77
2.	Regional Rural Bank	05	18.51
3.	Co-Operative Bank	01	03.70
4.	Private Financier (Money lenders)	00	00.00
Total		27	100

Source: Primary Data

Table 3. Type of loan (n=30)

S. No	Mode of loan/Type	No. of. respondents	Percentage
1.	Agricultural Loan	28	93.33
2.	Others	02	06.67
Total		30	100.00

Source: Primary Data

Table 4. Amount of loan availed (n=28)

S. No	Particulars	No. of. respondents	Percentage
1.	0-1 Lakhs	06	21.4
2.	2-5 Lakhs	22	78.60
Total		28	100.00

Source: Primary Data

3.4.2 Transportation charge

It could be observed that the majority of the sample respondents spent less than Rs. 1,000 for transportation of poultry farming, while 23.37 percent of sample respondents spent Rs. 2,000 - 3,000 for transportation especially for bird transport, vaccine purchase and feed purchase (Table 5).

3.4.3 Other miscellaneous expenditure

It could be identified that majority of the sample respondents (66.67%) spent less than Rs. 500 as miscellaneous expenditure in poultry farming. While 30 percent of the sample respondents spent Rs.500 -700 as miscellaneous expenditure like litter material purchase purpose in the poultry farming (Table 5).

3.5 Expenditure Incurred in Broiler Farming

3.5.1 Cost of shed and store room

Present study discovered that the majority of sample respondents (60%) had spent Rs. 1- 10 lakhs for the construction of the poultry shed, While 6.67 percent of sample respondents had spent less than Rs 1 lakh for construction of the poultry shed. [6] conducted a survey on Broiler production at Punjab. They observed that total fixed investment was maximum on large farms (Rs. 13, 26,346), followed by medium (Rs. 5, 78,516) and small farmers (Rs. 2, 68,854) with the overall average of Rs. 6, 78,083. It was identified that majority of sample respondents 66.67 percent had spent less than Rs. 1 lakh for construction of store room. While 33.3 percent of

sample respondent spent more than Rs. 1 lakh for construction of store room (Table 6).

3.5.2 Cost of litter material

Majority of the sample respondents were (86.66%) spent less than Rs. 10,000 for the purchase of litter material. While 10 percent of sample respondents spent money ranging from Rs 10,000 – 15,000. Similar results were found in [7] their study. They observed in their study that cost spent for litter had positive relationship with profit and also found that one per cent increase in litter would results in 0.19 per cent increase in profit (Table 6).

3.5.3 Cost of disinfection

Present study found that 70 percent respondents did disinfection with a cost of Rs 200-500 per batch, while 16.67 percent of sample respondents spent less than Rs. 200 for disinfection of poultry farm. Lime, bleaching powder and formalin used for disinfection (Table 6).

3.5.4 Cost of feeder and brooder

Out of 30 respondents 27 (90%) were spending up to Rs. Rs. 10,000 -30,000 for the purchase of feeders and drinkers per 300 birds, while 10 percent of the sample respondent were spending up to Rs. 10,000 for the purchase of feeder and drinker per 300 birds. About 53.33 percent of sample respondent spent less than Rs. 300 for the purchase of brooder per 300 birds, while 23.33 percent of the sample respondent spent around Rs 300 – 700 for the purchase of brooder per 300 birds (Table 6).

Table 5. Cost associated with input purchase and transportation charges (n=30)

Expenditure	Cost (Rs.)	No. of. respondents	Percentage
Input purchased per month	0-1000	08	26.67
	1000-3000	18	60.00
	3000-5000	04	13.00
Total		30	100.00
Transportation charge	0-1000	20	66.67
	1000-2000	03	10.00
	2000-3000	07	23.37
Total		30	100.00
other miscellaneous expenditure	Nil balance	05	16.67.
	0-300	03	10.00
	300-500	12	40.00
	500-700	09	30.00
	> 700	01	03.33
Total		30	100.00

Source: Primary Data

Table 6. Expenditure incurred in broiler farming

Expenditure	Particulars (Rs.)	No. of. respondents	Percentage
Cost of shed	0-1 Lakhs	08	26.67
	0-2 2-10 Lakhs	18	60.00
	11-20 Lakhs	03	10.00
	>21 lakhs	01	3.33
Total		30	100.00
Cost of store room	< 1 Lakhs	02	66.67
	>1 Lakhs	01	33.33
Total		03	100.00
Cost of litter material	0-5000	13	43.33
	5000-10000	13	43.33
	10000-15000	03	10.00
	>15000	01	3.34
Total		30	100.00
Cost of disinfection	100-200	05	16.67
	200-500	21	70.00
	>500	04	13.33
Total		30	100.00
Cost of feeder and drinker	<10000	03	10.00
	10000-30000	27	90.00
Total		30	100.00
Cost of brooder per 300 birds	< 300	16	53.33
	300-500	07	23.33
	500-700	05	16.67
	>700	02	6.67
Total		30	100.00
Cost of feed per 300 birds	< 1000	03	10.00
	1000 – 3000	08	26.67
	3000 – 5000	10	33.33
	> 5000	09	30.00
Total		30	100.00
Cost of Vaccination per 300 birds	<1000	14	46.67
	1000 -1500	06	20.00
	1500 -2000	04	13.33
	>2000	06	20.00
Total		30	100.00

Source: Primary Data

3.5.5 Cost of feed

Nearly 33.33 percent sample respondents spent Rs. 3,000 – 5,000 for the purchase of feed per 300 birds, while 30 percent of the sample respondents spent more than Rs. 5,000 for the purchase of feed per 300 birds. Around 10 percent of the respondents spent only less than Rs. 1,000 for feed. The results correlated to that of [8]. They reported that the expenditure on feed constituted the most important item of cost among variable costs (61.81% in small and 58.30% in large farms). It is also similar with [9]

stated that the feed cost was the major constitute in the poultry enterprise (Table 6).

3.5.6 Cost of vaccination

A total 30 respondents are interviewed and found that nearly 46.67 percent of sample respondents spent their money less than Rs. 1,000 for vaccination of 300 birds, while other spent their money ranging from Rs.1, 000 -1,500 and more than Rs. 2,000 with 20 percent per 300 birds. [7] suggested that government should increase veterinary services by supplying necessary

vaccine and medicine at lower price and by establishing new veterinary care centers (Table 6).

4. SUMMARY AND CONCLUSION

The economic analysis of broiler farming has been carried out on the basis of primary data collected from Perambalur District of Tamil Nadu, India. Majority of the respondents were old age persons and they were male. Most of the sample respondents were running broiler business as a main occupation and highly depends on institutional sources of finance. Hence, Government has to declare poultry farming as an agricultural activity and the benefits available to agriculture to be extended to poultry farming also. Government should initiate various schemes for the upliftment of poultry sector. Low cost vaccine and medicines may be provided to the growers which will minimize the variable cost. If all the above suggestions are implemented by the concerned authorities, the broiler farming will move in the right direction and the farmers will get good income. Poultry farming will prove to be an alternative source of income and employment.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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