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## A STUDY ON PRODUCTION AND MARKETING OF BROILER IN TIRUPUR DISTRICT

### Article Particulars

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### Abstract

*In the present scenario poultry sector is emerged as a dynamic industry with a vast scope for exports and employment generation. Because of the several breakthroughs in poultry science and technology have led to the development of genetically superior breeds capable of higher production, even under adverse climatic conditions that offer opportunities for entrepreneur to expand export of broilers and poultry products on a large scale. The present study analyses the growth of broilers at world, national, and district level and also it analyses the production and marketing of broilers in Tripur district.*

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### Introduction

India is the 5<sup>th</sup> largest producer of broiler meat in the world producing about 6,00,000 tones of broiler meat and it was positioned 17<sup>th</sup> in the world poultry production. The average per capita broiler meat consumption is 2.26 kgs in 2010. In India Tamil Nadu occupies 2nd position in broiler production. broiler farming in Tamil Nadu has grown into a big vibrant industry from mere backyard enterprise over the past decades. Now, this sector is emerged as a dynamic industry with a vast scope for exports and employment generation. Because of the several breakthrough in poultry science and technology led to the development of genetically superior breeds capable of higher production, even under adverse climatic conditions that offer opportunities for entrepreneur to expand export of broiler and poultry products on a large scale.

### Review of Literature

Prabakaran and Pandian (2006) analyzed the private sector participation in poultry production and marketing in India in case of Tamil Nadu has compared the cost of production of broiler by integrated and independent farmer and found that

independent farmers could not compete with integrators who could offer even much lower selling price due to their low cost of production and high volume of activity.

Nagaraj et al, (2008) in his Study on contract farming and input –supply, linkages between markets and farmers in Karnataka found that net return have been found higher for contract than non-contract farmers and the net returns for non-contract farmers(Rs.3035) have been found less than one third of domestic farmers(Rs 10,610) and slightly more than the foreign contract farmers(Rs.8050).

V.Balamurugan, and M.Manoharan had found that the total fixed investments per bird have been highest on small farms, followed by medium and large farms. The total cost of meat production per bird, returns per bird over the variable costs has been found highest on small broiler farms, followed by medium and large farms. On the basis of Net Present value, and Internal Rate of Return, investment in broiler farming has been found profitable in all farms sizes, it being most profitable on large farms, followed by medium and small farms. The small broiler farms have been observed highly sensitive to increase in cost and decrease in net returns. The study has observed that broiler farming is a profitable venture and has a bright future in the Tamil Nadu agro based industry for improving economic status of the farming community in general and in the study are in particular.

### **Statement of problem**

Indian Broiler Industry has attained a lot of success over the past few decades and it has been among the most rapidly growing industries. This growth and progress has been attained due to the investment that has been provided in by the state government and the private sector. This growth and progress in the field of broiler attracted the attention to conduct a study Production and Marketing of broiler Farming in Tamil Naadu. The Present Study analyses the growth rate of broiler at National, State, District level and Specifically analyse the production and marketing of broilers in Tripur District..

### **Objectives of the study**

1. To analyse the marketing practices and marketing efficiency;
2. To analyse the channels of distribution and price-spread; and
3. To analyse the cost and returns in broiler farming.
4. To summarizes the major findings and offer valuable suggestion;

### **Methodology**

#### **The Selection of Study area**

The researcher has selected Tirupur for the present study of Marketing of Broilers in Tirupur District, because it stand first in Production and Marketing.

### Data used for present study

In the present study both primary and secondary data are used. The Primary data is collected from the respondent directly by applying the Interview Schedule. The secondary data is obtained from various secondary sources such as Poultry Industry Year Book, World Poultry Guide, Government report, Internet and the like.

### Sampling Procedure

For the present study 50 contract farmer are selected by adopting the stratified proportionate random sampling techniques using lottery method.

### HYPOTHESES OF THE STUDY

The following hypotheses are farmed for the present study:

1. There is no structural differences between small farmers and large farmers;
2. There is no structural differences between monsoon season and summer season; and
3. There is no structural difference between two groups such as size-wise and season-wise.

### Price-Spread for Channel-I

Table 1 Shows the price-spread for channel-I pertaining to both summer and monsoon seasons.

**Table 1 Price-Spread for Broilers in Channel-I**  
(Integrator → Retailer → Consumer)

(per 100 kg)

Sl.No.	Particulars	Summer		Monsoon	
		Rs.	%	Rs.	%
1.	Integrators' sale price / Wholesalers' purchase price	6850	48.50	6245	46.27
2.	Marketing Cost Incurred by the retailer				
	i) Transportation	500	3.54	450	3.33
	ii) Weight loss and mortality	780	5.52	680	5.07
	iii) Establishment	820	5.80	830	6.17
	iv) Labour cost	1225	8.67	1120	8.29
	v) Dressing wastage	2260	16.00	2200	16.29
	vi) Total marketing cost incurred by the retailer	5585	39.54	5280	39.15
	vii) Retailers' margin	1690	11.96	1970	14.58
3.	Retailers' sale price/consumers' purchase price	14125	100	13495	100
4.	Price-spread (3-1)	7275	51.50	7250	53.72

### Source: Computed Data

It could be seen from Table 1 that the producers' sale price during summer season amounted to Rs.6850 whereas during monsoon season it stood at Rs.6245 per 100 kgs. of broilers, showing a difference of Rs.605. The price spread during summer season amounted to Rs.7275 (51.5 per cent of consumer price) whereas it stood at Rs.7250 (53.72 per cent of consumer price) during monsoon season and that retailers' margin

during summer amounted to Rs.1690 (11.96 per cent of consumer price) and during monsoon it was Rs.1970 (14.58 per cent of consumer price). This higher margin of retailer during monsoon season is due to the fact that the retailers do not proportionately reduce their selling price as compared to the reduction in purchase price.

**Price-Spread for Channel-II**

The price-spread for Channel-II pertaining to both summer and monsoon season is shown in Table 2.

**Table-2 Price-Spread for Broilers in Channel-II**  
*(Integrator → Wholesaler → Retailer → Consumer)*(per 100kgs.)

Sl.No	Particulars	Summer		Monsoon	
		Rs.	%	Rs.	%
1.	Integrators' sale price/Wholesalers' purchase price	6780	48.00	6205	45.97
2.	Marketing cost incurred by the wholesaler				
	i) Transportation	306	2.16	295	2.18
	ii) Weight loss and mortality	204	1.44	196	1.45
	iii) Establishment expenses	40	0.28	43	0.31
	iv) Labour	160	1.13	165	1.22
	Total marketing cost incurred by the wholesaler	710	5.02	699	5.17
	v) Wholesalers' margin	357	2.52	433	3.20
	vi) Wholesalers' sale price/Retailers' purchase price	7847	55.55	7337	54.36
3.	Marketing cost incurred by the retailer				
	i) Transportation	103	0.72	98	0.72
	ii) Weight loss	385	2.44	362	2.68
	iii) Establishment expenses	816	5.77	779	5.77
	iv) Labour cost	1325	9.38	1226	9.08
	v) Dressing wastage and mortality	2264	16.02	2208	16.33
	Total marketing cost incurred by the retailer	4893	34.66	4673	34.62
	vi) Retailers' margin	1385	9.80	1485	11.02
	vii) Retailers' sale price/consumers' purchase price	14125	100	13495	100
5.	Price-spread (4-1)	7345	52.00	7290	54.00

**Source: Computed Data**

From Table 2 it could be inferred that the producers' sale price during the summer season amounted to Rs.6780 whereas during monsoon it stood at Rs.6205 per 100 kgs. of broilers, showing a difference of Rs.575. The price-spread during summer amounted

to Rs.7345 (52 per cent of consumer price) whereas it stood at Rs.7290 (54 per cent of consumer price) during monsoon season.

The reduction in consumer price during monsoon season is due to the low production cost and the excess supply. Further, it is observed that the demand is also less during this season.

### Price-spread for Channel-III

The season-wise price-spread of Channel-III consisting of three intermediaries are shown in Table 3

**Table 3 Price-Spread for Broilers in Channel-III**  
(Integrator → Commission Agent → Wholesaler → Retailer → Consumer)  
(per 100kgs.)

Sl.No	Particulars	Summer		Monsoon	
		Rs.	%	Rs.	%
1.	Integrators' sale price	6731.22	47.65	6159.64	45.64
2.	Commission agent charges	49.78	0.35	45.36	0.33
3.	Wholesaler Wholesalers' purchase price	6781	48.00	6205	45.97
	Marketing cost incurred by the wholesaler				
	i) Transportation	315	2.15	294	2.17
	ii) Weight loss and mortality	201	1.42	202	1.49
	iii) Establishment expenses	39	0.27	46	0.34
	iv) Labour	159	1.12	166	1.23
	Total marketing cost incurred by the wholesaler	714	5.05	708	5.17
	v) Wholesalers' margin	362	2.56	434	3.21
	vi) Wholesalers' sale price/Retailers' purchase price	7857	55.62	7347	54.44
4.	Retailer Marketing cost incurred by the retailer				
	i) Transportation	105	0.74	102	0.75
	ii) Weight loss	389	2.75	364	2.69
	iii) Establishment expenses	817	5.78	781	5.78
	iv) Labour cost	1324	9.37	1228	9.09
	v) Dressing wastage and mortality	2266	16.04	2206	16.34
	Total marketing cost incurred by the retailer	4901	34.69	4681	34.68
	vi) Retailers' margin	1367	9.69	1467	10.88
5.	Retailers' sale price/consumers' purchase price	14125	100	13495	100
6.	Price-spread (5-1)	7393.78	52.34	7335.36	54.35

Source: Computed Data

From Table 3 it could be inferred that the producer's sale price during the summer season amounted to Rs.6731.22 whereas during monsoon season it stood at Rs.6159.64 per 100 Kgs. of broilers showing a difference of Rs.571.58. The price-spread during summer season amounted to Rs. 7393.78 (52.34 percent of consumer price) whereas it stood at Rs.7335.36 (54.35 percent of consumer price) during monsoon seasons.

In this channel the producer's sale price is lesser than the Channel-I and Channel-II. This is due to the presence of commission agents in between the producers and wholesalers. The length of this channel is longer than the other two channels. Marketing cost incurred by the wholesalers and the retailers under this channel is more, compared to Channel-II due to the low quantity of broilers distributed and coverage of distant markets under this channel.

**Marketing Efficiency**

Marketing efficiency is directly related to the cost involved in moving goods from the producer to the consumer and the quantity of services offered. If the cost incurred when compared with the services involved is low, it will be efficient marketing. The improvement in marketing efficiency means the reduction of marketing cost without reducing the quantum of services to the consumer.

The marketing efficiency of the three major channels used in the distribution of broiler is measured by Efficiency Index and Shephard's method.

**Efficiency Index**

The Marketing Efficiency Index has been examined for three different channels with the help of the following formula:

$$\text{Efficiency Index} = 1 + \text{M.M.}/\text{M.C.}$$

Where;

M.M. = Marketing Margin

M.C. = Marketing Cost

The computed results through the above formula is presented in Table 4.

**Table 4 Marketing Efficiency According to Marketing Index**

(rupees per 100kgs.)

Particulars	Channel-I		Channel-II		Channel-III	
	Summer	Monsoon	Summer	Monsoon	Summer	Monsoon
Marketing Cost (M.C)	5585	5280	5603	5372	5615	5389
Marketing Margin (M.M)	1690	1970	1742	1918	1729	1901
Efficiency Index	1.30	1.37	1.31	1.35	1.30	1.35

**Source: Computed Data**

It is observed from Table-4 that the marketing efficiency in Channel-II 1.31 is greater than that in Channel-I (1.30) and Channel-III (1.30) during summer. During monsoon season Channel-I had greater efficiency (1.37) compared to Channel-II (1.31) and Channel-III (1.35) in the study area. The efficiency of Channel-III is very poor because of its high marketing cost.

### World Level

**Table 5 Major Poultry Producing Countries in the World**

1980	1990	2000	2010
United States of America	United States of America	United States of America	United States of America
USSR	China	China	China
China	USSR	Brazil	Brazil
Brazil	Brazil	France	Mexico
Japan	France	Mexico	India(5 <sup>th</sup> )
France	Japan	United Kingdom	France
Italy	Italy	Japan	Indonesia
Spain	United Kingdom	Thailand	Iran
United Kingdom	Spain	Italy	Argentina
Germany	Mexico	Canada	United kingdom
Canada	Canada	Argentina	
Mexico	Thailand	Spain	
Poland	Germany	India(13 <sup>th</sup> )	
.....	.....		
.....	.....		
India(35 <sup>th</sup> )	India(25 <sup>th</sup> )		

**Source: Department of Animal Husbandry and Veterinary Sciences, Chennai.**

It is evident from Table 5 that India occupied 35<sup>th</sup> position in the production of broiler meat in the year 1980. Slowly meat production increased and occupied 25<sup>th</sup> position in the year 1990 and occupied 13<sup>th</sup> place in the year 2000. After 2000 there was a tremendous growth in the production, consumption and export of broiler meat in India and it helps the country to occupy 5<sup>th</sup> position in the production of meat in the world.

### National Level

**Table 6 State-Wise Broiler Meat Production**

Sl. No.	States/Union Territory	Meat Production ('000Tonnes)				
		2007-08	2008-09	2009-10	2010-11	2011-12
1	Andhra Pradesh	309	334	363	400	446
2	Arunachal Pradesh	1	1	1	1	1
3	Assam	6	6	5	5	6
4	Bihar	22	26	31	37	37
5	Chandigarh	14	16	17	19	15
6	Goa	5	5	5	5	6
7	Gujarat	13	15	17	18	31
8	Haryana	185	220	230	306	324

9	Himachal Pradesh	1	1	1	0.4	1
10	Jammu & Kashmir	6	6	6	6	7
11	Jharkhand	2	3	3	4	5
12	Karnataka	18	18	20	25	38
13	Kerala	17	14	16	16	184
14	Madhya Pradesh	16	11	11	12	13
15	Maharashtra	275	280	309	334	346
16	Manipur	5	5	6	6	6
17	Meghalaya	4	4	4	4	4
18	Mizoram	2	2	1	2	2
19	Nagaland	-	-	-	3	2
20	Orissa	51	53	59	64	62
21	Punjab	42	49	75	79	79
22	Rajasthan	9	10	10	15	19
23	Sikkim	0.3	0.4	1	1	1
24	Tamil Nadu	334	356	397	362	350
25	Tripura	6	11	12	13	14
26	Uttar Pradesh	178	203	231	175	175
27	Uthargand	1	1	1	1	2
28	West Bengal	231	232	252	273	301
29	Chandigarh	0.1	0.1	0.1	0.1	0.1
30	Lakshadweep	0.2	0.2	0.3	0.2	0.2
31	Pondicherry	3	3	5	6	7
	Total	1755	1884	2087	2193	2483

**Source: Department of Animal Husbandry and Veterinary Sciences, Chennai.**

Table 6 clearly shows that Tamil Nadu occupies 2<sup>nd</sup> position in the broiler meat production in India and the first place goes to Andhra Pradesh. The 3<sup>rd</sup>, 4<sup>th</sup> and 5<sup>th</sup> places were occupied by Maharashtra, Haryana and West Bengal respectively.

**Table 7 Income Earned through Broiler Rearing by the Contract Farmers**

Item of Income Earned	Small3249 Birds	Medium6923 birds	Large12613 birds	Overall6532 birds
Commission Received	12323.53	27777.56	47757.39	25462.67
Sale of empty feed Bags	606.35	1384.34	2372.52	1265.32
Sale of Manure	736.81	1716.92	2972.68	1574.15
<b>Total</b>	<b>13666.69</b>	<b>30879.82</b>	<b>53102.59</b>	<b>28302.14</b>
<b>Income Per Bird</b>	<b>4.21</b>	<b>4.46</b>	<b>4.21</b>	<b>4.33</b>

**Source: Computed Data**

It is inferred from Table 7 that the commission received was the major source of income, it is clear from the table that the income earned per broiler by the small, medium and large farmers amounted to Rs. 4.21, Rs. 4.46 and Rs. 4.21 respectively. It is obtained that the income earned per broiler by the medium farmers was more than that of small and large farmers. This is because of the optimum utilization of all the resources.



### Income earned and Cost Incurred

The average cost incurred, income earned and net income realized per thousand broilers by the contract farmers in the study area is computed, analysed and the final result is presented in Table 8 for further interpretation

**Table 8 Income Earned and Cost Incurred and Net Income Per Thousand Birds**

Particulars	Small	Medium	Large	Overall
Income earned	4.21	4.46	4.21	4.33
Cost Incured	3.35	3.72	3.66	3.61
<b>Net Income</b>	<b>0.86</b>	<b>0.74</b>	<b>0.55</b>	<b>0.72</b>

**Source: Primary Data**

It is observed from Table 8 that the net income earned per broiler by the small farmers stood at Rs.0.86.where as in the case of medium farmers it was 0.74 and in case of large farmers it was 0.55

It is found out that the net income of small farmers was higher than those of medium and large farmers. It is due to the fact that complete family labour is employed in this category of small farms which results in economical

### Production Cost of Broilers

**Table 9 Production Cost of Rearing Broilers**

Item of Expenditure	Small324 9 Birds	Medium6923 birds	Large1261 3 birds	Overall6532 birds
Electricity	760.85	1946.72	29.74.48	1696.74
Coal/Gas	1148.65	3135.11	4778.36	2756.29
Litter Materials	2246.39	5158.76	8448.16	4861.88
Labour	3836.30	9240.70	16796.39	8123.24
Depreciation on Fixed Assets	1649.63	3899.12	7041.06	3595.73
Interest on Loan	1238.41	2342.36	6172.36	2522.95
<b>Total</b>	<b>10880.23</b>	<b>25722.77</b>	<b>46210.81</b>	<b>23556.83</b>
<b>Cost Per Broiler</b>	<b>3.35</b>	<b>3.72</b>	<b>3.66</b>	<b>3.61</b>

**Source: Computed Data**

From Table 4.2 It is inferred that the labour cost incurred by the contract farmers was the highest of all the cost it amounted to Rs.8123.24 out of the total cost of Rs.23556.83. The cost of litre materials was the next highest cost with Rs.4861.88. It was followed by the depreciation on fixed assets, the least cost in rearing of broilers was electricity charges. The total cost of rearing per broiler amounted to Rs.3.35, Rs.3.72 and Rs.3.66 in the case of small medium and large contract farmers.

## Income, Cost and Net Income per Thousand Broilers

Table 9 Income, Cost and Net Income per thousand Broilers

Cost Component	Small Integrators		Large Integrators	
	Amount	Percentage	Amount	Percentage
<b>I. Variable Cost</b>				
i) Broiler Eggs	5270.13	10.85	4980.89	10.67
ii) Hatching	806.30	1.66	774.91	1.66
iii) Feed	34207.68	70.43	33134.32	70.98
iv) Medicine	937.45	1.93	914.95	1.96
v) Commission	4352.10	8.96	3832.53	8.21
Total Variable Cost	45573.66	93.83	43637.60	93.48
<b>II. Fixed Cost</b>				
i) Fixed Expenses and Depreciation	966.59	1.99	872.94	1.87
ii) Interest on Loan	2030.33	4.18	2170.68	4.65
Total Fixed Cost	2996.92	6.17	3043.62	6.52
<b>Total Cost (I+II)</b>	<b>48572.59</b>	<b>100.00</b>	<b>46681.22</b>	<b>100.00</b>

**Source: Computed Data**

It is clear from Table 4.5 that among the various components of variable cost, the feed cost formed the major item which constituted around 70 percent of total cost in both the categories of integrators. It was followed by broiler eggs and other variable expenses.

**Major Findings**

- India occupy 5th position in the production of meat in the world.
- Tamil Nadu occupies 2<sup>nd</sup> position in the poultry meat production at national level
- Trippur district stands first in the broiler production.
- Majority of the respondents have their firm individually.
- 28% of the respondents are youngsters.
- 44% of the respondents were completed secondary education.
- Majority of the respondents were have their firms in rural.
- 50% of the respondents were reared between 5,000-10,000 birds per batch.

**Suggestions**

- Poultry farms should be converted into large scale to avail the benefit of large scale production.
- The formers should change the traditional selling practice of selling live broilers into packed food to cater the needs of consumers.
- Government has to take steps to educate the farmers to reduce mortality rate.
- Government has to provide facilities like electricity at subsidized rate.
- Government has to monitor and fix minimum prices to prevent price fluctuations

## Conclusion

The poultry farming sector of India has attained a lot of success over the past few decades and it has been among the most rapidly growing industries. This growth and progress has been attained due to the investment that has been provided in by the state government and the private sector. Poultry makes an ideal subsidiary occupation especially for weaker sections of the rural community. Thus the development of poultry farms not only helps to improve the socio economic condition of rural areas, but also provides employment opportunities to the urban and sub-urban people through various ancillary industries.

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