CHAPTER VII

SUMMARY, FINDINGS, SUGGESTIONS, AND CONCLUSIONS

7.1 SUMMARY

Poultry industry is one of the important agro-based industries in the world. The industry is associated with the production of eggs (layer industry). The industry plays a significant role in the current scenario of India as a powerful tool to fight the three evils of Modern Society. viz, malnutrition, unemployment and supplementary income. In Salem district poultry industry has shown tremendous growth during the last, few decades. It developed from backyard system to full-pledged commercial venture. At present India is the third largest producer of eggs and Salem is the second largest producer of eggs in TamilNadu. However, the poultry – farming units in Salem are functioning in the unorganized sector.

In Salem, many more new entrepreneurs have entered in the poultry sector. They have adopted new methods of production for getting a fair return. Now these entrepreneurs in Salem are engaged in large-scale production of eggs. In this situation, it is quite relevant to conduct a study on the working of poultry industry in Salem district of Tamil Nadu.

The present study is an empirical one based on survey method. Data have been collected from both primary and secondary sources. The primary
data have been collected with the help of pre-tested interview schedule and through discussions. A field survey has been conducted covering 61 sample poultry units of the nine Taluks. The proportionate Random Sampling method has been used. Twenty five per cent of poultry industries were taken for the study.

In order to investigate more effectively the working of the sample units the units have been stratified into (1) Small Scale Farm (SSF) (2) Medium Scale Farm (MSF) (3) Large Scale Farm (LSF) based on certain norms.

7.2 FINDINGS

The first specific objective of the study is to find out the growth the poultry industry in the World, India, Tamil Nadu and Salem district. The poultry industries contribute Rs.7500 crores to the Gross National Product of the country. Likewise, the industry employs 2.5 million people, mostly in the rural areas. The historical perspective of poultry industry in India is 5000 years old. The archaeological survey indicates that fowls were domesticated in China as early as 1400 BC. India has made rapid strides in poultry production during the last decade. The annual per capita consumption of eggs is only 35 eggs as against the recommended consumption of 180 eggs by the World Health Organization. About 75 to 80 per cent of the eggs produced in the country are consumed by just 25 per cent of the population in urban areas. In rural areas the annual per capita consumption is only 15 eggs. Salem is the second largest
producer of eggs in Tamilnadu. The socio-economic conditions of the sample respondents are divided in two categories (i) Personal profile (ii) Business profile.

7.2.1 Personal Profile

1. Out of the total 61 poultry entrepreneurs surveyed, 25 (41.0 per cent) entrepreneurs belong to 30-40 age group. The percentage share of 84.6 per cent in this respect small farms, 13 (32.5 per cent) are medium farms and 1 (12.5 per cent) is a large farm.

2. Out of the total 61 poultry entrepreneurs surveyed 58 (95.1 per cent) entrepreneurs are males. Out of this 58, 12 (92.3 per cent) are small farms, 38 (95.3 per cent) are medium farms and 8 (100 per cent) are large farms.

3. Out of the total 61 poultry entrepreneurs surveyed 56 (91.8 per cent) entrepreneurs are Hindus. Out of this 56, entrepreneurs 13 (100 per cent) are small farms, 36 (90 per cent) are medium farms and 7 (87.5 per cent) are large farms.

4. Out of the total 61 poultry entrepreneurs surveyed 31 (50.8 per cent) entrepreneurs belong to backward community. Among them, 9 (69.2 per cent) are small farms, 18 (45.0 per cent) are medium farms and 4 (100.0 per cent) are large farms.

5. Regarding the monthly income earned by the farmers from poultry farming among the small, medium and large scale farm among the Salem, 25 (41.0 per cent) small farm income is 3 (23.1 per cent). Medium farm income is 19 (47.5 per cent) and large farm income is 3 (37.5 per cent)
6. The study reveals that all the 61 sample poultry industry owners are married.

7. Majority (39) of the sample poultry entrepreneurs have nuclear family (63.9 per cent) out of them, 11 (84.6 per cent) are small farms, 22 (55.0 per cent) are medium farms and 6 (75.0 per cent) are large farms.

8. The study reveals that out of the 61 poultry entrepreneurs’ surveyed 28 (45.9 per cent) entrepreneurs have the household size of 4. Among them 4 (30.8 per cent) are small farms, 20 (50.0 per cent) are medium farms and 4 (50.0 per cent) are large farms.

9. The study reveals that out of the 61 poultry entrepreneurs surveyed 32 (52.5 per cent) earn rupees below 25000. Out of these 7 (53.8 per cent) are small farms, 21 (52.5 per cent) entrepreneurs are medium farms and 4 (50.0 per cent) entrepreneurs are large farms.

10. The study reveals that out of the 61 poultry entrepreneurs surveyed 35 (57.4 per cent) entrepreneurs are working in poultry as well as engaged in agriculture. Out of these 10 (76.9 per cent) are small farms, 20 (50.0 per cent) are medium farms and 5 (62.5 per cent) are large farms.

7.2.2 Business Profile

1. Out of the total 61 poultry entrepreneurs surveyed 59 (96.7 per cent) entrepreneurs use their own farms. Among them 13 (100.0 per cent) are small farms, 38 (95.0 per cent) are medium farms and 8 (100.0 per cent) are large farms.

2. Out of the total 61 poultry entrepreneurs surveyed, 59 (96.7 per cent) entrepreneurs belong to first generation category. Among them 11 (84.6
per cent) are small farms, 19 (47.5 per cent) are medium farms and 4 (50.0) are large farms.

3. Out of the total 61 poultry entrepreneurs surveyed 32 (52.5 per cent) entrepreneurs are from rural areas. Among them 8 (61.5 per cent) are small farms, 20 (50.0 per cent) are medium farms and 4(50.0 per cent) are large farms.

4. Out of the total 61 poultry entrepreneurs surveyed 45 (73.8 per cent) entrepreneurs are sole traders. Among these 13 (100.0 per cent) are small farms, 29 (72.5 per cent) are medium farms and 3 (37.5 per cent) are large farms.

5. Out of the total 61 poultry entrepreneurs surveyed 32 (52.2 per cent) entrepreneurs have no previous experience. Among them 7 (53.8 per cent) are small farms, 24 (60.0 per cent) are medium farms and 1 (12.5 per cent) are large farms.

6. Out of the total 61 poultry entrepreneurs surveyed 28 (45.9 per cent) spent 8-12 hours in the farms. Among these 6 (46.2 per cent) are small farms, 18 (45.0 per cent) are medium farms and 4 (50.0 per cent) are large farms.

7. Out of the total 61 poultry entrepreneurs surveyed 43 (70.5 per cent) are members in trade association. Among these 8 (61.5 per cent) are small farms, 27 (67.5 per cent) are medium farms and 8 (100 per cent) are large farms.

8. Out of the total 61 poultry entrepreneurs surveyed, 39 (63.9 per cent) have not participated in training programme in the field of poultry farming. Out of these 5 (38.5 per cent) are small farms 27 (67.5 per cent) are medium farms and 7 (87.5 per cent) are large farms.
The second objective of the study is to evaluate the poultry production practice

On an average a bird produces one egg per day. Furthermore, not all birds start to lay exactly when they are 21 weeks old. Planning is therefore required for egg production to be constant so as to meet market demand. The temperate prevailing in Salem is conducive to produce on between 250 and 310 eggs per year. For 100 birds at 21 weeks of age only five would actually be laying. On an average a bird produces 208 eggs over a twelve-month period, which is a weekly production rate of four eggs per bird. At 21 weeks of age 20 eggs are produced (Five birds produce four eggs each) and at 22 weeks, 40 eggs are produced. Egg production rises rapidly and then starts to fall after 31 weeks of age.

The third objective of the study is to analyze the egg production and the factors motivating to start poultry farming.

7.2.3 Egg production practice

1. Out of the total 61 poultry entrepreneurs surveyed 40 (65.6 per cent) entrepreneurs used asbestos sheet for their poultry farm. Out of these 6 (46.2 per cent) are small farms, 27 (67.5 per cent) are medium farms and 7 (87.5 per cent) are large farms.

2. Out of the total 61 poultry entrepreneurs surveyed 60 (98.4 per cent) entrepreneurs have concrete floor in their farms. Out of this 12 (92.3 per cent) are small farms, 40(100.0 per cent) are medium farms and 8 (100.0 per cent) are large farms.
3. All the 61 poultry entrepreneurs surveyed had adopted the practice of constructing a poultry house.

4. Out of the total 61 poultry entrepreneurs surveyed 58 (95.1 per cent) entrepreneurs adopted the system of rearing birds in multiple rearing. Out of these 12 (92.3 per cent) are small farms, 38 (95.0 per cent) are medium farms and 8 (100.0 per cent) are large farms.

5. Out of the total 61 poultry entrepreneurs surveyed 31 (50.8 per cent) entrepreneurs maintained based on minimum week of batch intervals. Out of them 11 (84.6 per cent) are small farms, 16 (40.0 per cent) are medium farms and 4 (50.0 per cent) are large farms.

6. All the 61 poultry entrepreneurs surveyed had adopted practice of flooring the farm.

7. Out of the total 61 poultry entrepreneurs surveyed 41 (67.2 per cent) entrepreneurs used electrical method of brooding. Among them 8 (61.5 per cent) are small farms, 30 (75.0 per cent) are medium farms and 3 (37.5 per cent) large farms.

8. All the 61 poultry entrepreneurs surveyed had adopted the practice of brooding & light management.

9. Out of the 61 poultry entrepreneurs surveyed 19 (31.1 per cent) entrepreneurs used litter materials in the form of paddy husk. Out of the 19, 4 (30.8 per cent) are small farms, 12 (30.0 per cent) are medium farms and 3 (37.5 per cent) are large farms.

10. All the 61 poultry entrepreneurs surveyed had adopted the practice of litter management.

11. Out of the total poultry entrepreneurs surveyed 28 (45.9 per cent) entrepreneurs both, purchased and used their own feed. Out of them 1 (7.7 per cent) is a small farm, 21(52.5 per cent) are medium farms and 8 (75.0 per cent) are large farms.
12. Out of the total poultry entrepreneurs surveyed 41 (67.2 per cent) entrepreneurs used both linear feed and feed hopper. Out of them 2 (15.4 per cent) are small farms 32 (80.0 per cent) are medium farms and 7 (87.5 per cent) are large farms.

13. Out of the total poultry entrepreneurs surveyed 37 (60.7 per cent) entrepreneurs used automatic drinking feed. Out of the 37 farms 6 (46.2 per cent) are small farms, 29 (72.5 per cent) are medium farms and 2 (25.0 per cent) are large farms.

14. All the 61 poultry entrepreneurs surveyed had adopted the practice of giving diet supplements to the birds.

15. All the 61 poultry entrepreneurs surveyed had adopted the practices of feeding and watering the birds in the correct ratio.

16. Out of the total 61 poultry entrepreneurs surveyed all the entrepreneurs are adoption practice vaccination and prevention medium.

17. All the 61 poultry entrepreneurs surveyed had adopted the practice of cleaning and disinfecting the farms.

18. Out of the total 61 poultry entrepreneurs surveyed 32 (52.5 per cent) entrepreneurs had no insurance for their poultry farming. Out of these 11 (84.6 per cent) are small farms, 19 (47.5 per cent) are medium farms and 2 (25.0 per cent) are large farms.

19. Out of the total 61 poultry entrepreneurs surveyed 47 (77.0 per cent) entrepreneurs have proper maintenance of accounts record. Among these 47, 9 (69.2 per cent) are small farms. 30 (75.0 per cent) are medium farms and 8 (100 per cent) are large farms.
7.2.4 Factors motivating to start poultry farming

The factor analysis of fourteen attributes motivating to start poultry farm. It is observed the five factors namely economy, performance, cost, goodwill and motive were extracted out of fourteen attributes. These factors account for about 75.571 per cent of variance in the data. Eigen value for the first factor “Economy” is 3.466 which indicate that the factor contains very high information than the other factors. The first factor “Economy” provides the maximum insight to start the poultry farm in the study area. It is a very important factor, because the respondents prefer to start the poultry farm with economy in maintenance, availability of resources and godown facility. To improve this situation, poultry farmers should give more importance to the attributes concerning economy maintenance. The second important factor called ‘performance’ accounts for 19.624 per cent variance. The Eigen value of this factor is 2.747. It expects poultry farmers to improve the performance of expansion, maximize the production and customer satisfaction. The third important factor called ‘cost’ accounts for 14.185 per cent variance. The Eigen value of this factor is 1.986. The fourth factor ‘Goodwill’ accounts for 8.569 per cent variance. The Eigen value of this factor is 1.2, it possesses the attribute of farmer’s reputation (Goodwill). The last factor is ‘motive’ which accounts for 8.434 per cent variance. The Eigen value of this factor is 1.181. These factors are also important in motivating to start the poultry farm.
High value of Kaiser – Mayer – Olkin (KMO) test of sampling adequacy (0.677) indicates the correlation between the pairs of variables explained by other variables and thus factor analysis is considered to be appropriate in this model.

The fourth objective of the study was to find out the trend, growth and magnitude variability of egg production

### 7.2.5 Egg production in World

#### Trend Value

Among the major egg producing countries, of the world from 2000-2010, China occupied the first rank with an average of 26 million tonnes eggs, USA ranked second with 5 million tonnes eggs, India ranked third with 2.6 million tonnes eggs, Japan, ranked fourth with 2.5 million tonnes eggs, Russia, ranked fifth with 2.07 million tonnes eggs, Mexico, ranked sixth with 2.06 million tonnes eggs, followed by Brazil with 2 million tonned eggs and France in the eighth rank with an average production of 1 million tonnes eggs. The other countries contributed 19 millions of eggs on an average.

#### Growth Rate

The world production of eggs increased at the rate of 2.094 per cent per year. It is also observed that the trend co-efficient is positive in all countries except in France and is significant, indicating an increasing trend in the world production of eggs among the countries of the world during 2000-2010.
It is also found that among the countries of the world, the production of eggs in India had increased at the rate of 5.682 per cent per year, followed by 3.514 per cent per year in Mexico, 2.802 per cent per year in Brazil, 1.859 per cent per annum in China and Russia, 1.39 per cent per year in the USA and 0.013 per cent in Japan. It has decreased at the rate of 1.625 per cent in France.

➢ **Magnitude of Variability**

The production of eggs in China had experienced a variation of 6.92 per cent. There was also a variation of 5.19 per cent in the U.S.A, 1.65 per cent in Japan, 17.2 per cent in India, 5.96 per cent in Russia, 11.2 per cent in Mexico, 8.69 per cent in France and 9.27 percent in the Brazil. On the whole, the rate variation in the egg production in the world countries during the period of 2000-2010 was 6.65 per cent.

**7.2.6 State-wise Egg Production in India**

➢ **Trend Value**

The state-wise egg production in India during 2000-2010 is given below. Among the major states, regarding the annual production of eggs, Andhra Pradesh occupied the first rank with 158297 lakhs eggs, followed by TamilNadu in the second rank, with 62271 lakhs eggs, Maharasstra in the third rank with 34195 lakhs eggs, Punjab in the fourth rank with 33781 lakhs eggs, WB in the fifth rank with 14778 lakhs eggs. The other States contributed about 86558 lakhs eggs on an average. Andhra Pradesh contributed 34.19 per cent
share of the total eggs produced, followed by Tamil Nadu with 13.45 per cent, Maharashtra with 7.39 per cent, Punjab with 7.30 per cent, West Bengal with 6.31 per cent, Haryana with 5.04 per cent, Karnataka with 4.45 per cent and Kerala with 3.19 per cent.

In 2009-10, Andhra Pradesh showed the highest production of eggs of 193958 lakhs out of the total production of 598434 lakhs. Tamil Nadu also had its highest production of eggs in 2009-10 with 108476 lakhs eggs. Maharashtra had its highest production of eggs in 2009-10 with 38640 lakhs eggs. In 2000-01, Andhra Pradesh had its lowest production of eggs of 118000 lakhs out of 365723 lakhs of total eggs produced. During 2002-03, Tamil Nadu had its lowest production of eggs with 36222 lakhs out of 398228 lakhs of total eggs produced. In the year, 2000-01, Maharashtra had its lowest production of eggs of 30985 lakhs out of 36523 lakhs of eggs produced. In 2001-02, Punjab had its lowest production of eggs with 29613 lakhs out of 384688 lakhs of total eggs produced.

➢ Growth Rate

The state-wise production of eggs increased at a rate of 5.682 per cent per year. It is also observed that the trend coefficient is positive for all states except Kerala. The trend co-efficients is significant for all states except Karnataka, indicating an increasing trend in the state-wise production of eggs among the states of India during 2000-2010.
The production of eggs in Haryana had increased at the rate of 19.95 per cent per year, followed by 13.76 per cent in Tamil Nadu, 4.95 per cent in Andhra Pradesh, 3.039 per cent in Karnataka, 2.329 per cent in Punjab, 2.094 per cent in West Bengal, and 1.859 per cent in Maharashtra. It has decreased at the rate of 2.565 per cent in Kerala.

**Magnitude of variability**

The production of eggs in Andhra Pradesh had experienced a variation of 14.56 per cent. There was also a variation of 16.86 per cent in Karnataka, 21.54 per cent in Kerala, 6.16 per cent in Maharashtra, 9.82 per cent in Punjab, 41.95 per cent in Tamil Nadu, 59.38 per cent in Haryana and 6.44 per cent in West Bengal. On the whole, the rate of variation of egg production in the states of India during the period of 2000-2010 was 17.34 per cent.

**District-wise Egg production in TamilNadu**

The district-wise egg production in India during 2000-2010 is as follows. Among the major districts, regarding the annual production of eggs, Namakkal, occupied the first rank with 40717 lakhs eggs, followed by Salem in the second rank, with 1996 lakhs eggs, Thrivallur in the third rank with 840 lakhs eggs. Kanchipuram in the fourth rank with 385 lakhs eggs. Vellore in the fifth rank with 338 lakhs eggs, Villupuram in the sixth rank with 251 lakhs eggs, Thiruvannamalai in the seventh rank with 158 lakhs eggs and Cuddalore in the eighth rank with 147 lakhs eggs. The other districts contributed about 17440 lakhs eggs on an average. Namakkal contributed 65.39 per cent share of
the total eggs produced, followed by Salem with 3.21 per cent, Thiruvallur with 1.35 per cent, Kanchipuram with 0.62 per cent, Vellore with 0.54 per cent, Villupuram with 0.40 per cent, Thiruvannamalai with 0.25 per cent and Cuddalore with 0.24 per cent.

➢ Growth Rate

The district-wise production of eggs increased at a rate of 13.763 per cent per year. It is also observed that the trend co-efficient is positive for four states while other states showed a negative trend coefficient. The trend co-efficients are significant for Kanchipuram, Salem and Namakkal, indicating an increasing trend in the production of eggs during 2000-2010.

In Tamil Nadu, the production of eggs in Salem had increased at the rate of 321.13 per cent per year, followed by 27.643 per cent in Namakkal, 11.173 per cent in Thiruvallur and 5.925 per cent in Kanchipuram. It has decreased at the rate of 6.414 per cent in Cuddalore, 9.144 per cent in Villupuram, 8.893 per cent in Vellore and 15.611 per cent in Thiruvannamalai.

➢ Magnitude of Variability

The production of eggs in Kanchipuram experienced a variation of 24.44 per cent. There was also a variation of 83.29 per cent in Thiruvallur, 41.45 per cent in Cuddalore, 36.64 per cent in Villupuram, 45.89 per cent in Vellore, 51.86 per cent in Thiruvannamalai, 67.91 per cent in Salem and 61.05 per cent in Namakkal. On the whole, the rate of variation of egg production in the districts of Tamil Nadu during the period of 2000-2010 was 41.95 per cent.
7.2.7 Egg production in Salem District

Egg production in Salem is positive and statistically significant at one per cent level. It indicates that there is a significant increase in the egg production in India $R^2$ Value is 0.683 per cent. The egg production in Salem has increased at the rate of 32.13 per cent per annum. The analysis also reveals that there is 67.91 per cent variation in the production of egg in Salem during the period under study.

The fifth objective of the study to find out the Cost and Return analysis revealed that the brooding stage of the feeder cost amounts to Rs.37117.20 for small poultry industries Rs.50745.76 for medium poultry industries and Rs.82798.43 for large poultry industries. The labour cost amounts to Rs.3785 for small poultry industries, Rs.4990.61 for medium poultry industries and Rs.6071.43 for large poultry industries. The medicine cost worked out to be about Rs.2483.20 for small poultry industries, Rs.3565.97 for medium poultry industries and Rs.7737.71 for large poultry industries. The cost of electricity is around Rs.37635.40 for small poultry industries, Rs.64071.73 for medium poultry industries and Rs.125050.65 for large poultry industries. The cost of electricity is higher for the small, medium, as well as the large poultry industries compared to the other costs. It is also inferred that the total cost for the large poultry industries be Rs.221658.22 is higher than that of small poultry industries (Rs.81020) and medium poultry industries (Rs.123374.07).
The feeder cost during the Growing stage amounts to Rs.61949.35 for small poultry industries, Rs.37254.15 for medium poultry industries and Rs.177029.86 for large poultry industries. The labour cost amounts to Rs.4870 for small poultry industries, Rs.76836.33 for medium poultry industries and Rs.7357.14 for large poultry industries. The medicine cost worked out to Rs.2198.75 for small poultry industries, Rs.3744.18 for medium poultry industries and Rs.7016.86 for large poultry industries. Feeder cost is higher for the small, medium, as well as the large poultry industries compared to the other costs. The total cost for the large poultry industries (Rs.191403.86) is higher than that of small poultry industries (Rs.69018.1) and medium poultry industries (Rs.108681.66).

The feeder cost during the adult stage amounts to Rs.60200.15 for small poultry industries, Rs.98556.39 for medium poultry industries and Rs.192170 for large poultry industries. The labour cost amounts for Rs.9255 for small poultry industries, Rs.13784.85 for medium poultry industries and Rs.16714.29 for large poultry industries. The feeder cost is higher for the small, medium, as well as the large poultry industries compared to the other costs. The total cost for the large poultry industries (Rs.208884.29) is higher than that of small poultry industries (Rs.69455.15) and medium poultry industries (Rs.112341.24).
Regarding the Annual average cost of sale of eggs in small poultry farm, the expenditure starts with the cost of hatcheries which amounts to Rs.595182 (4.37 per cent). The brooding stage cost is Rs.810208 (5.95 per cent) growing stage cost is Rs.1380362 (10.14 per cent) and the adult stage cost is Rs.3472757.50 (25.51 per cent). The cost of production amounts to Rs.6258509.50 (45.98 per cent) followed by the manufacturing overheads cost Rs.2552400 (18.75 per cent) and the administrative overheads cost Rs.1338400 (9.83 per cent). The other fixed costs amounts for Rs.3461600 (25.43 per cent). The total cost of sales is Rs.13610909.50 (100 per cent). Income of the small poultry farm from sale of manure is Rs.162720.60 (1.20 per cent) and from sale of cull birds is Rs.861462 (6.33 per cent) Total miscellaneous receipts are Rs.1024182.60 (7.52 per cent) so the net cost of sales is total expenses minus total receipts which amounts to Rs.12586726.90.

Regarding the annual average cost of sale of eggs in medium poultry farm, the expenditure starts with the cost of hatcheries which amounts to Rs.929378.40 (4.32 per cent). The brooding stage cost is Rs.1233740.70 (5.74 per cent), growing stage cost is Rs.2173633.20 (10.11 per cent) and the adult stage cost is Rs. 5617062 (26.13 per cent). The cost of production amounts to Rs.9953814.30 (46.30 per cent) followed by the manufacturing overheads cost Rs.4036147.71 (18.78 per cent) and the administrative overheads cost Rs.2107857.61 (9.81 per cent). The other fixed costs amounts for Rs.5399539.62 (25.12 per cent). The total cost of sales is Rs.21497359.24 (100
per cent). Income of the medium poultry farm from sale of manure is Rs.268428.3 (1.25 per cent) and from sale of cull bird Rs.1421091 (6.61 per cent). Total miscellaneous receipts are Rs.1689519.3 (7.86 per cent). So the net cost of sales is total expenses minus total receipts which amounts to Rs.19807839.94.

Regarding the annual average cost of sale of eggs in large poultry farm, the expenditure starts with the cost of hatcheries which an amount is about Rs.1574746.30 (4.08 per cent). The brooding stage cost is Rs.2216582.20 (5.75 per cent) growing stage cost is Rs.3828077.20 (9.92 per cent) and the adult stage cost is Rs.1044214.50 (27.08 per cent). The cost of production amounts to Rs.18063620.20 (46.83 per cent) followed by the manufacturing over heads cost Rs.7093570.31 (18.39 per cent) and the administrative overheads cost Rs.37772513.99 (9.78 per cent). The other fixed costs amounts to Rs.9642775.44 (25 per cent). The total cost of sales is Rs.38572479.94 (100 per cent) Income of the large poultry farm from sale of manure is Rs.500799.60 (1.30 per cent) and from sale of cull birds is Rs.2651292 (6.87 per cent) Total miscellaneous receipts are Rs.315209.6 (8.17 per cent). So the net cost of sales is total expenses minus total receipts which amount to about Rs.35420380.34.

In the sixth objective of price analysis the components were decomposed into four categories namely, secular trend, cyclical variation, irregular variation and seasonal variation.
7.2.8 Secular Trend

The secular trend price analysis identified the trend of the price of eggs in Salem market for the period from 1991 to 2010. It could be observed from the above function that the co-efficient of determination ($R^2$) was 0.722 which indicated that 72.20 per cent of variation in the price of egg was explained by the dependent variable.

The result also shows that there has been a significant increase in the price of eggs over the years. The annual average price of egg per quantity has increased at the rate of Rs.12868 per annum.

7.2.9 Cyclical Variation

Cyclical variation in price of eggs refers to recurrent up and down movements around secular trend levels which have a duration anywhere from 2 to 20 years. These cycles may or may not be periodic. This study is useful in framing variable policies for stabilizing the price level. The cyclical variation in the prices of egg is analysed by moving average method.

The indices of cyclical variation in the prices of eggs reached the maximum in 1994 and it started declining until 2000 and again in started increasing and reached the peak level in 2005. The price of eggs started to increase until 2007 and then it recovered.
7.2.10 Irregular Variation

The indices of irregular variations for the price of egg at Salem market ranged from 0.9 to 1.09. The co-efficient of variation of irregular variation per cent. Thus it is inferred that irregular variation in the price of egg was seen which was confirmed by the co-efficiency of variation of the irregular indice. The irregular variation in the price of egg may be due to sudden changes in demand, influenced by the changes in taste and buying behaviour, the price of substitutes, change in relative income level and the like.

7.2.11 Seasonal Variation

The seasonal variation exists in the price of egg in the Salem market in different months of a year. It could be observed from the seasonal indices that the lower price prevailed from August-October. This is the religious and festival season.

7.3 SUGGESTIONS

The economy of Salem district is a backward one because of the non-development of industries especially the agricultural sector. But, at present the poultry industry is developing well when compared to agriculture. The poultry industry has become the back bone of Salem district. Hence, the researcher recommends the following guidelines for the increase of production of eggs in Salem district.
Greater awareness can be given to the small entrepreneurs to avail the loan facilities and other concessions available to start poultry farms.

The Tamilnadu Electricity Board can take more care to avoid frequent power cuts to have uninterrupted production.

The banks and other financial institutions granting financial assistance to variable poultry industrial units should streamline their existing complicated lending procedure and practice.

Care should be exercised by the banks in providing working capital assistance to viable poultry units based on their performance and actual requirements.

The NABARD should ensure refinance facilities to the banks so that the developments of poultry industry are carried out without fail.

The Government should give due support to the ancillary units engaged in the production of poultry equipments and medicine.

Adequate infrastructure facilities should be developed for the growth of poultry units in the rural area. The facilities of water should be provided to the farmers with liberalized terms and conditions.

The Agricultural Universities and District Industries Centre may provide necessary training facilities to the persons involved in the industry in the areas of management and supervision, technology and other services needed by the industry.

The poultry farmers should adopt new technologies to increase productivity and to meet the challenges posed by the changing economic scenario. The application of scientific methods like biotechnology will help the farmers to reduce the cost of production and earn fair price for their products.

The cost of labour can be minimised by mechanizing the activities of feeding and watering to birds and effective utilization of plant capacity.
Poultry industry needs greater integration, better cost effectiveness and improvement in distribution.

The poultry farmers should follow scientific poultry management practices in the area of health care of poultry birds. Proper vaccination and diet supplements will reduce the mortality rate of birds. Besides keeping of birds in a healthy and hygienic environment can reduce the cost of health care.

The research institutions in the field should give emphasis on the scope for producing alternative poultry feed at low cost with available feed ingredients.

Feed wastage in the farm should be reduced to the extent possible. For this purpose, the farmers should analyze the sources of feed wastage and take remedial action. Further, technological up-gradation and adoption of innovative technology are essential.

Any type of trade tax on poultry feed and poultry equipment should be exempted in the district of Salem to make this sector flourish more as done in the other poultry advanced States.

The Government should treat poultry farming on par with agriculture and may extend all the benefits to poultry farmers as provided to agriculturists.

Steps may be taken to procure the poultry waste and by-products of the individual poultry units and utilize the same in the agriculture farms run by the Government /University. This has a cumulative effect in disposing the waste as well as enhancing the production of agriculture farms.

The General Insurance companies should introduce new insurance policies to cope up with the changes that are taking place in the sector.
7.4 CONCLUSION

As poultry industry is also a significant foreign exchange earner and a source of income and employment to millions of people, this study has been undertaken. Another aim is, mainly to help the government to take up policy decisions and formulate suitable schemes and programmes to ameliorate the socio-economic conditions of the egg producers. The government should come forward to implement all the various suggestions given and thereby many people can start more poultry industrial units. India can definitely earn more amount of foreign exchange by poultry based products to various countries.