CHAPTER - V

FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

Poultry farming in India has a long history but it is only about last four decade that it has been practiced in a “scientific manner”. From backyard poultry to commercial poultry farming, the poultry industry has emerged as a gainful and dignified business enterprise in India and elsewhere in the world.

Landless labours and small farmers find a support in this business since the poultry farming can be practiced as a supplementary or second income generating mechanism. This provides the rural farmers an excellent business opportunity which requires very little additional expenditure. In fact, poultry farming has become an indispensable component of agricultural industry in India.

According to the egg production data of 2012, with a production of 65450 million eggs, India is ranked 3rd after China and the USA while with a production of 3.16 million tons of broiler meat India ranks 5th after the USA, China, Brazil and European Union. In spite of an annual growth of 7.3% in the 2001-2010 decade, in 2011-12 the per capita availability of eggs and poultry meat is 55 and 2.612 Kg per capita. This is lesser than the per capita availability of 180 eggs and 11 Kg meat per capita per annum stipulated by the government (ICMR).

About 70% of the national poultry output is supplied by organized sector, of which major supply, about 60 to 70%, comes from the southern India which has shown tremendous development and growth where egg production annual growth rate is 6% while chicken meat production annual growth rate is 10%.

The Maharashtra poultry farming industry has shown appreciable growth in the last 4 decades ending in 2010. According to the live stock census, Maharashtra is 3rd in poultry population, ranking after Andhra Pradesh and Tamil Nadu. It also ranks 3rd in eggs and poultry meat production. Of the 7 divisions in Maharashtra (Mumbai, Nasik, Pune, Aurangabad, Latur, Amaravati and Nagpur), highest poultry population
contributed by Pune division is 39.84% while lowest poultry population is contributed by Latur division which is 1.94%.

Latur, Nanded and Osmanabad districts fall under the Marathwada administrative division. In Maharashtra Vidarbha and Marathwada regions are considered backwards in industrial and economic development as compared to Mumbai and western Maharashtra region. These backward regions have a high number of people involved in farming where due to less development of irrigation, the farming is heavily dependent on the rains. Thus the farmers have to face the consequences of natural calamities like dry/wet famine or hail storms resulting in serious economic problems for the farmer. This can be seen from the fact that after Vidarbha the highest number of suicides by farmers is in Marathwada. In such a difficult economic situation the business of poultry farming is a boon for farmer, which can be practiced as a supplementary business that requires less investment, less expenditure while generating higher incomes in least amount if time.

Latur and Osmanabad districts are situated on the Karnataka border while Nanded district is situated on the Telangana (Andhra Pradesh). According to the department of animal husbandry (government of Maharashtra) Latur district has 113 broiler farms, Nanded has 5 broiler farms while Osmanabad district has 13 broiler farms.

Nanded has only 5 broiler farms implying that this business did not develop as it could have since there is import of poultry products from Nizamabad (Telangana). This has resulted adversely on the poultry farming industry of Nanded. On a happier note it is seen that Latur district has seen a appreciable development in poultry farming. This could be a result of the use of modern and scientific techniques resulting in higher production and higher profits.

52 poultry farms from Latur, Nanded and Osmanabad were selected as samples for study. Among those 34 poultry farms are from Latur, 5 from Nanded and 13 from Osmanabad district. All these farms were visited and primary data was collected by discussing with the entrepreneur and completing the interview schedule.
For study, records of the department of animal husbandry (government of Maharashtra) were referred and 34 out of 113 from Latur (30%), 5 out of 5 from Nanded (100%) and 13 out of 13 from Osmanabad (100%) broiler farms were selected. The broiler farms from Latur district were chosen by using random sample technique. For a better and in depth study, the broiler farms were classified based on the number of broiler birds viz. (1) Small Scale Farms (SSF) – rearing up to 1000 birds (2) Medium Scale Farms (MSF) – rearing between 1000 to 3000 birds (3) Large Scale Farms (LSF) – rearing more than 3000 birds.

5.1 Major findings of the study

**Socio – Economic characteristics of poultry farmers**

1. The poultry farming is a male dominated industry where 50 out of 52 surveyed farms (96.15%) were run by men. Latur has 94.12%, Nanded – 100% and Osmanabad – 100% male poultry farmers.

2. Of the total, 65.38% poultry farmers belong to the age group of 40-50. Latur has 61.76%, Nanded - 80% while Osmanabad has 69.23% farmers from this age group. Latur shows a wide spectrum of age groups – young, middle aged, old including senior citizens.

3. 65.38% of the total 52 farms practiced poultry farming as a supplementary business to their traditional farming. 61.76% from Latur, 80% from Nanded and 69.22% from Osmanabad pursue poultry farming as supplementary business.

4. It is assumed that the poultry farming is a preferred occupation by the Muslim community which seems to have been a faulty notion. 38.46% of the total 52 farms belong to Maratha community. In Latur 35.29%, Nanded – 40% and Osmanabad 46.15% poultry farms belong to the Maratha community.
5. Of the total 52 farms, 46.15% farmers have studied at least up to the S.S.C. level. 61.54% farmers from Osmanabad have S.S.C. level education and lead in this matter to Latur and Nanded. Poultry farmers from Latur seem to have pursued education higher than the S.S.C. level.

6. Of the 52 sample poultry farms 88.46% farmers have no poultry industry specific training. This is reflected as 85.29% in Latur, 100% in Nanded and 92.31% in Osmanabad. 14.71% from Latur and 7.69% from Osmanabad have received some training.

7. 82.69% of the total farms are located in rural area. Osmanabad district has the highest (84.62%) of rural poultry farms as compared to Latur and Nanded.

8. In the 52 sample farms studied through the survey, all the poultry farms (100%) are situated on their own land.

9. 34.61% farmers have been practicing this business for more than 12 years. 53.85% farmers from Osmanabad district have an experience of more than 12 years while Latur has the highest population of young poultry farmers.

10. Of the 52 sample poultry farms 56.85% poultry farmers have the habit of saving. The poultry farmers from Latur (61.76%) have a habit of saving which is higher than that for Nanded and Osmanabad.

11. None of the 52 poultry farmers studied through this survey is a member of any poultry association.

**Structural characteristics of poultry farms**

1) Of the 34 poultry farms selected from Latur district, 22 (64.70%) are small scale farms, 8 (23.53%) are medium scale while 4 (11.77%) are large scale farms. In Nanded 5 sample farms were studied among which 4 (80%) are small scale and 1 (10%) is large scale farm while in Osmanabad among 13
sample farms were studied of which 7 (53.85%) are small scale, 4 (30.77%) are medium scale and 2 (15.38%) are large scale poultry farms.

2) All the 52 sample farms considered for study are operated and run by the farmer themselves. No farm is run on contract basis.

3) Out of the total 52 poultry farms, 32 (61.545) farmers adopt Multiple Rearing System. This includes 61.76% from Latur, 60% from Nanded while 61.54% from Osmanabad.

4) 30 out 34 (88.24%) sample farms from Latur, 4 out of 5 (80%) from Nanded and 8 out of 13 (61.54%) from Osmanabad use electricity for brooding.

5) Majority of the poultry farms in Nanded (80%) use readymade feed while in Latur 55.88% and in Osmanabad 61.54% poultry farms use readymade feed. Small scale farms seem to prefer readymade feed while the large scale poultry farms prefer to use own feed.

6) Out of the total 52 sample farms, 76.92% farms use metal sheet roofing and 23.08% use asbestos sheet for roofing. 80% of the farms in Nanded have metal sheet roof.

7) 73.53% farms from Latur, 60% from Nanded while 69.23% from Osmanabad have concrete flooring.

8) Among the farms studied, 94.23% farms use a Manual Feeder mechanism to provide bird feed. All poultry farms in Nanded district use this technique.

9) 75% from the 52 sample farms use a Semi-Automatic drinker mechanism for the birds. 82.35% farms from Latur use this technique in their farms.

10) The material that is available locally in abundance is preferred as the litter material. 41.84% farms from Latur use groundnut shells as litter material.
80% from Nanded and 53.85% farms from Osmanabad use rice husk as litter material

11) The total capital investment in fixed assets per bird is comparatively higher in Nanded district as compared to Latur and Osmanabad districts.

12) 86.54% of the total farms are not covered under any form of Insurance benefit plans.

13) 67.31% farms from the survey have not adopted practice of keeping formal records and accounts. Only 40% poultry farmers from Nanded and 32.53% poultry farmers from Latur district have adopted these practices.

Marketing Practices

1. Majority of the farmers of the sample area market their products at wholesale price (56.27%) from Latur, (60%) from Nanded and (53.84%) from Osmanabad. Only a small fraction of the total produce is marketed through retail trader, input supplier and consumer.

2. Majority of the farmers of the sample area sell their products on credit basis. This is reflected as 31 out of 52 (59.62%) in the study area. This practice is highest in Osmanabad district (61.54%).

Cost and Profitability Analysis

1. Average total fixed cost per bird for small, medium and large scale farms from sample farms of Latur is Rs.7.24, Rs.6.93 and Rs.6.62 respectively. In Nanded this is found to be Rs.7.41, Rs.7.16 and Rs.6.97 while for Osmanabad it is Rs.7.32, Rs.7.08 and Rs.6.83 respectively. Percentage of average total fixed cost per bird to average total cost per bird is 5.71%, 5.50% and 5.29% in Latur, 5.70%, 5.62% and 5.49% in Nanded while it is 5.68%, 5.61% 5.44% in Osmanabad for small, medium and large scale poultry farms respectively.
Significant difference between the districts among the sample units are noticed statistically.

2. Average total variable cost per bird for SSF, MSF and LSF in Latur is Rs.117.35, Rs.116.90 and Rs.116.47, in Nanded it is Rs.120.25, Rs.118.10 and Rs.117.90 while in Osmanabad it is Rs.119.15, Rs.117.00 and Rs.167.57 respectively.
The ‘t’ test reveals that this difference between these three districts is significant.

3. The average cost of chicks per bird for small scale poultry farms in Latur is Rs.20, in Nanded Rs.21.50 while in Osmanabad, it is Rs.20.50.

4. The average cost of poultry feed per bird in Latur is Rs.93, Rs.90 and Rs.91, for Nanded it is Rs.94, Rs.90.50 and Rs.90.67 while it is Rs.94, Rs.91 and Rs.91 in Osmanabad for small, medium and large scale poultry farms respectively. The statistical test proves that this difference is significant.

5. The average cost of labour per bird in medium and large scale poultry farms in Latur is Rs.3.75, Rs.2.50, in Nanded it is Rs.2.50 and Rs.2.50 while in Osmanabad it is Rs.2.25 and Rs.2.00 respectively.
This difference is found to be statistically significant.

6. The average total cost of production per bird of the sample poultry farms in Latur district was Rs.126.79, Rs.126.02 and Rs.125.27, in Osmanabad district it is Rs.128.71, Rs.126.27 and Rs.125.58 while in Nanded it is Rs.129.91, Rs.127.47 and Rs.127.08, for small, medium and large scale poultry farms respectively.
The statistical test shows that the difference between the sample poultry farms of these districts in this respect is significant.

7. The average Net Profit ratio per bird of the sample poultry farms in Latur is 10.71%, 11.25% and 11.78%, in Nanded it is 4.33%, 6.13% and 6.42% while
in Osmanabad it is 6.60%, 8.37% and 8.87% for small, medium and large scale poultry farms respectively.
This difference is statistically significant.

8. The average profit volume ratio per bird in sample units of Latur district was 15.81%, 16.13% and 16.44%, in Nanded it was 9.79%, 11.41%, 11.55% while in Osmanabad it was 11.91%, 13.51% and 13.82% for small, medium and large scale farms respectively.
This difference is statistically significant.

9. The average total cost of production ratio per bird in Latur is comparatively lesser as compared with Osmanabad and Nanded. This ratio was 89.29%, 88.75% and 88.22% in Latur, 93.40%, 91.63% and 91.13% in Osmanabad while it was 95.66%, 93.87% and 93.58% in Nanded for small, medium and large scale poultry farms respectively.
The statistical test shows that the difference between the sample farms of these districts in this respect is significant.

**Financial Structure**

From the 52 poultry farms studied through survey in this study, 25 (47.08%) farmers have used their own funds for investments. 52.94% from Latur, 20% from Nanded and 46.15% farmers from Osmanabad have invested their own money in the poultry farm. 60% farmers from Nanded have used borrowed funds, 20% have used own funds while 20% have used a combination of own and borrowed funds for investment.

**Role of poultry industry in the development of Latur, Nanded & Osmanabad**

1. Out of 52 sample farms, SSF generated employment for 33 people, MSF employed 24 while LSF generated employment for 28 people.

2. Out of 52 sample farms of the study area, 42 (80.77%) farmers have confirmed that poultry farming has generated additional income. Majority of farmers (82.35%) from Latur district experienced this.
3. 38 out of 52 (73.07%) poultry farmers were able to spend more on the education of their children. 76.47% poultry farmers of Latur were able to spend more on their children’s education.

4. 34 out of 52 poultry farmers (65.38%) agreed to be in a position of spending for a better and healthy living. This is reflected as 73.53% from Latur, 60% from Nanded and 61.54% from Osmanabad.

5. Out of 52 sample poultry farms, 44 farmers (84.62%) informed of being able to afford food of high nutritive value. This is reflected as 85.29% from Latur, 80% from Nanded and 84.62% from Osmanabad district.

5.2 Recommendations

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

2. Government, through institutions like the veterinary colleges and universities, should provide knowledge and training for development and maintenance of poultry farms along with educating them about the new scientific methods and modern technology.

3. The government should verify if these poultry farmers are receiving various grants, subsidies and financial benefit schemes. Those who are found guilty of not providing the same to the farmers or who misappropriate these funds should be punished severely.

4. To resolve the problems of shortage of capital, provision should be made so that these farmers will receive loans faster and at a reduced rate of interest through nationalized banks. Complicated and time consuming processes and systems should be replaced with those that are easy to implement and process. This is keeping in mind that most of the poultry farmers are less
educated and are likely to be duped or cheated in processes that require too much of documentation and processing.

5. Government should make an effort to restart and rejuvenate those poultry farms that have been closed for operation due to epidemics or natural calamities.

6. NABARD provides refinancing facility to those banks that provide loans/financing to the poultry industry (farmers). But the banks tend not to provide these financing schemes to the poultry farmers. So, the Government should ensure that the banks provide such schemes and that this is followed and implemented rigorously.

7. The currently established Trade Channels are financial traps for the poultry farmers due to which the farmers are not able to recover even the cost of production. So the Government should implement a Minimum-support-price depending on the prevailing conditions and circumstances. The Government along with poultry corporations should ensure such a mechanism along with providing cold-storage and retail outlets, to boost the overall business.

8. The insurance companies should provide appropriate and instant relief to those who are affected and required financial assistance.

9. There is paucity of up-to-date data from the poultry sector resulting in problems to plan and implement long term projects and schemes. The Government of Maharashtra should make proper and adequate arrangements to collect and compile this data for use by the experts and planners.

10. The poultry farmers should be a part of poultry farmers association and local groups so that they can contact and connect with other poultry farmers. This will enable them to receive information and knowledge about the industry and financials schemes.
11. The cost of raw material inputs used as feed ingredients like maize and soya DOC is continually increasing which results as increase in expenditure for the farmer. Government should provide the feed ingredients and should also keep a control over the demand, supply or import of these materials.

12. The Government, through its initiatives and programs for elimination of malnutrition, should raise the awareness about the availability of required nutrition in the poultry products. This could be achieved through various public awareness campaigns.

13. Most of the business conducted by the poultry farmer is through an agent and is in the form of credit, resulting in cash crunch for the farmer. To avoid and eliminate this, poultry associations should provide a mechanism to allow poultry farmer to directly reach out to the end user, thereby increasing his profit and receive cash payments.

14. The poultry industry can be seriously disturbed and destroyed by disease like the Avian Influenza H2N1 and Bird Flu. The poultry farmers should protect themselves (their poultry population) through vaccination and basic medication procedures.

15. Poultry farmers should produce more batches of poultry birds so that they can earn more periodically. This will bring continuity and stability in their business. Business is always accompanied by risks, but such approaches can help reduce the burden arising out of losses.

5.3 CONCLUSIONS
From analysis of the findings from this study, the following conclusions are drawn:

i. The socio-economic condition of the poultry farmers from Latur district is better than those from Nanded and Osmanabad districts.
ii. The farms from Latur district have better structural characteristics for the poultry houses as compared to the farms from Nanded and Osmanabad districts.

iii. The total fixed cost of broiler poultry farms is highest in Nanded followed by Osmanabad with Latur district has least total fixed cost.

iv. The total variable cost for Nanded district is comparatively higher than that of Osmanabad and Latur.

v. The total cost of production for Nanded district is higher than Osmanabad and Latur district poultry farms.

vi. The financial position of the poultry farms from Latur is better than those of Nanded and Osmanabad.

vii. The Poultry farms from Latur are more profitable than those of Osmanabad and Nanded districts.

viii. Majority (90.38%) of the marketing of the produce is through the wholesale trader only.

ix. Majority of the poultry farms sell their birds on credit basis resulting in cash crunch to the poultry farmer.

x. Low market price, external competition and exploitation by intermediaries were the major problems faced by the farmers in the area of marketing their produce.

xi. Poultry farming provide employment and earning not only for the farmer, but also supports associated business enterprises like the transport, feed producer, equipment manufacturer, wholesale trader and finally the retailer.
xii. An important aspect is the suitability and availability of opportunity for landless labourer, small land holders, educated/uneducated unemployed and women to become entrepreneurs.

xiii. This business has helped poultry farmers from this region by stabilizing their financial conditions and increasing their income, resulting in the improvement of their living standards.

From this study, the findings and the conclusions, it can be said that the poultry farming and industry has played an important role in the economic development of the people from rural areas.