

OPERATIONAL PROBLEMS OF POULTRY UNITS A STUDY OF WARANGAL DISTRICT (TELANGANA)

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ABSTRACT

The world poultry-meat industry derives its significance from the fact that among all the meat categories, poultry meat is the fastest growing. Consumers increasingly prefer poultry meat to bovine and ovine meat as it is a source of high quality human food. There are many diversified types of business allied poultry farming like egg production and broiler production. Production of all these business can be developed as rural industries which will have many avenues of employment of rural side particularly among educated unemployed and underemployed persons. The present study aims at examining the operational problems in select Poultry Units of Warangal district. The study analyses the installed capacity, capacity utilisation, the Inventory Management practices and yield.

KEYWORDS : Poultry Units, Operational Problems, Installed Capacity, Capacity Utilisation, Yield

The world poultry-meat industry derives its significance from the fact that among all the meat categories, poultry meat is the fastest growing. According to an estimate made by Food and Agriculture Organization (2003), world bovine and ovine meat productions are expected to increase by 15.3 and 4.5 million tonnes, respectively, during the period 1997 and 2015, compared with an increase of 38.8 million tonnes for poultry meat during the same period. Consumers increasingly prefer poultry meat to bovine and ovine meat. In fact, in the US, beef consumption has decreased significantly over the last two decades, losing about 25% of the market share to pork and poultry. Increasing consumer preference for poultry meat can be attributed to growing concerns related to health, hygiene, quality, safety, consistency, convenience and variety, concerns over growing red meat-borne illnesses (e.g., mad cow disease), and price-competitiveness vis-à-vis red meat (<http://www.mdchick.umd.edu>).

The poultry farming is very versatile agrobusiness, it can be adopted under any circumstances to provide many benefits like-

1. It is a source of high quality human food. Egg is not only supports in nutritive value, but also it is very easily digested and can be served in different ways. It is also used in many ways like binders and leavening agents in baking and furnishes "richness" in ice cream, sauces and candies.
2. It is highly adaptable under various conditions. For example, it fits well in mixed farming system to provide

continuous income to the farmers during their lean periods and also helps to engage their family labor profitable throughout the year.

3. It provides employment avenues. There are many diversified types of business allied poultry farming like egg production and broiler production. Production of all these business can be developed as rural industries which will have many avenues of employment of rural side particularly among educated unemployed and underemployed persons.
4. Poultry waste is an excellent source of organic manure, which can be utilized for growing field crops. It is estimated that if the poultry manure is utilized properly, it can produce more food grains than the birds consume as feed.
5. It serves as source of raw materials for industrial products. Eggs have many industrial uses in preparation of vaccines, varnished printers, land, soap and shampoo etc. Eggshells are used as minerals in animal feed. Endocrine glands of birds are used for preparation of hormones and any other biological preparations (Rahman and Hossain, 1995; Karlan, 2002; Singh and Jilani, 2005; Aho Paul, 2010).

The financial performance of an undertaking deal with the evaluation of the companies' financial health, at a particular point of time, during its life time and also it involve the determination of efficiency of the management in utilizing and managing the funds provided for the business. The financial performance of a company

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influences its production, marketing and other functions and consequently affect the rise of the company, its growth, risk and profitability. Thus, the function of financial manager is to review the control decision to commit or de-commit funds to new or outgoing uses.

The study is confined to poultry units of Warangal district. The study is related to important factors as inventory management, installed capacity, capacity utilisation, types of farming, production period, yield, live stock holding period, debt collection period, feed stock maintenance and medicine stock maintenance as these areas are pertinent problems of poultry industry (Frands, 2003; Md Fazlul and Kabir, 1998; Del Ninno et al., 2001; Mandal et al., 2006).

DATA AND METHODOLOGY

a. Sample

The study used the convenience sampling technique for selecting the samples. Altogether 20 sample units have been take for study across the district.

b. Sources of Data

The study used both primary and secondary data to a large extent. Secondary data is collected from the government bulletins, reports and other published material from internet. On the other hand, discussions were also held with employees & proprietors of poultry units to solicit their views with regard to operational problems.

c. Techniques of Data analysis

While analyzing the quantitative data, statistical techniques like averages, diagrams, ratios, percentages, standard deviations are used.

1. Installed Capacity of Poultry Farms

There are three types of farming in poultry industry viz Layers, Broilers. and Hatcheries. Layer birds

are reared for laying the eggs and broiler birds are reared for immediate commercial consumption. An analysis is done to understand the views of officials on installed capacity of the sample poultry farms which are selected for the study presented in Table 1.

The Table 1 reveals that 50 per cent of the poultry farms have 5,000 to 10,000 square feet of capacity, where as 40 per cent are of below 5000 capacity and only 10 per cent of the firms are above 10,000 square feet. It indicates that poultry business is undertaken on a very small scale and there are two units only which operate with installed capacity of 10,000 square feet and above.

2. Capacity Utilisation of Poultry Farms

The views of officials on utilisation of the installed capacity is presented in Table 2.

The Table 2 discloses the farm's capacity utilisation. About 60 per cent of the farms utilise 85-90 per cent of the installed capacity, and only 10 per cent of the farms utilise 90-95 per cent of the capacity. Since livestock farming is included in the installed capacity, total 100 per cent of the capacity cannot be utilised (Beutler, 2007; Bujarbaruah and Gupta, 2005; C. Krishna Rao, 2005).

3. Type of Poultry Farming

Poultry farming is of three kinds viz Layers, Broiler and hatcheries. In layer farming the birds are reared for laying the eggs. Broiler farming is done to sell the bird's meat to chicken industry. In Hatcheries, the chicks are produced and sold to either layer farming or broiler farming. An attempt is made to understand the type of farming selected by the farms of select units.

The above Table 3 discloses that 65 per cent of the farms are broiler farms, 25 per cent of the farms are layer farms and 10 per cent of the farms are Hatcheries. It is

Table 1 : Installed Capacity of Poultry Units

Capacity in Square feet	No. of Units	Percentage
Below 5000 Sq ft	8	40
5000-10,000 Sq ft	10	50
Above 10,000 Sq ft	2	10
Total	20	100

Source : Field Survey

Table 2 : Capacity Utilisation of Poultry Farms

Capacity Utilisation	No. of Units	Percentage
80-85 per cent	6	30
85-90 per cent	12	60
90-95 per cent	2	10
Total	20	100

Source : Field Survey

Table 3 : Type of Poultry Farming

Type of Farming	No. of Units	Percentage
Layer	5	25
Broiler	13	65
Hatcheries	2	10
Total	20	100

Source : Field Survey

Table 4 : Production Period in Select Units

Layer Farming		Broiler Farming		Hatcheries	
No. of Days	No. of Units	No. of Days	No. of Units	No. of Days	No. of Units
125-490 days	2	37- 39	3	21 days	2
125-504 days	3	40-42	8		
		43-45	2		

Source : Field Survey

evident that majority of the poultry units of select units are broiler farms. The officials opined that Broiler Farms enable the select units to get back their investment in shorter periods.

4. Production Period

The production period estimates the time taken for a batch to convert into sales. In the present study, an analysis is made to know the time taken for the broiler farms, hatcheries and layer farms production period which is presented in the Table 4.

The Table 4 indicates that a majority of poultry units i.e. 8 are taking 40-42 days for the broiler birds

breeding and sale. The hatcheries will take 21 days for the chicks to be produced and the layer birds are developed in 125 days to start laying eggs. The layer birds will lay eggs upto 504 days starting from 125 days in 60 per cent of the farms and in 40 per cent of the layer farms it lay eggs upto 490 days starting from 125 days (Rhodes et al., 2008; Jensen and H. Askov., 2000).

5. Yield of Poultry Industry

Yield represents the performance of the units and its demand. To know the performance of the poultry units the data is analysed and presented in the form of Table 5.

The average production period for Broiler breed is

Table 4 : Production Period in Select Units

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No. of Days	No. of Units	No. of Days	No. of Units	No. of Days	No. of Units
125-490 days	2	37- 39	3	21 days	2
125-504 days	3	40-42	8		
		43-45	2		

Source: Field Survey

Table 5 : Number of Yields of Broiler Farming

No. of Yields	No. of Units	Percentage
5 per year	2	15
6 per year	4	31
7 per year	6	46
8 per year	1	08
9 per year	0	0
Total	13	100

Source: Field Survey

Table 6 : Finished Livestock Holding Period of Poultry Farms

No. of Days	No. of Units	Percentage
1- 3days	15	75
4-6 days	3	15
7 -9 days	2	10
10 -12 days	0	0
Total	20	100

40 days and there is a potentiality of 9 yields in a year (365 days), But the Table 5 projects that there is about 46 per cent of the farms have 7 yields per year, 31 per cent of the firms have 6 yields per year, 15 per cent of the farms have 5 yields per year and eight per cent of the farms have eight yields per year. Thus, not even a single broiler farm is able to have 9 yields per year and only one unit is able to reach a figure of 8 yields per annum. It implies that finished stock turnover rate is very low.

The reasons for not having goods yields are climatic factors, festivals, seasonal demands for the product and religious fervor. It is also found that in the summer

season the mortality rate is 10-15 per cent and in winter season the birds consumes additional 20-25 grams of feed which results in additional burden to the farmer. The another reason is the debt collection period which is 15 -30 days in this industry, this collection makes the farmer to be idle for 15 days to collect the money and invest in the next yield. Thus, these reasons are delaying the yields and overall productivity has been declined.

6. Finished Livestock Holding Period

In Poultry Industry, the finished livestock holding period should be minimum. Higher the period, additional costs are bound to be incurred which increases the need for

Table 7 : Debt Collection Period of Poultry Farms

No. of Days	0-10 Days	10-20	20-30 Days	Total Farms
Broiler Farms	5	4	4	13
Layer Farms	0	1	4	5
Hatcheries	1	0	1	2
Total	6	5	9	20
Percentage	30	25	45	100

Source: Field Survey

Table 8 : Feed Stock Maintenance of Poultry Farms

No. of Days	1-5 Days	5-10 Days	10-15 Days	Total Farms
Broiler Farms	3	8	2	13
Layer Farms	0	2	3	5
Hatcheries	2	0	0	2
Total Farms	5	10	5	20
Percentage	25	50	25	100

Source: Field Survey

higher working capital and burdens the management. The details of finished livestock holding period of select units are presented in Table 6.

The Table 6 depicts that 75 per cent of the farms stock for 1-3 days, 23 per cent of the farms stock for 4-6 days and only 15 per cent of the farms stock for 7-9 days. It reveals that once the livestock is produced, it is sold within three days irrespective of the price in the market. The farmers are not daring to stock the birds after production because the feed consumption of the bird will be higher than its growth in weight after the production time.

Thus, once the batch is ready it has to be sold. Sometimes farmers sell the stock at less price and incur heavy losses. Further they can't hold the stock in their farms for the right price because after the batch is ready the feed consumption is high and growth in its weight is not in the same proportion of feed (Mapiye and Sibanda, 2005).

7. Debt Collection Period

Debtor's collection period is the average amount of days it takes for the business to receive the money from its customers. The sooner debtors pay the amount due, better

the business. Hence, a short debtor's collection period is good. If debtors pay quickly, it helps cash flow and reduces the risk of customers not paying the money they owe. An attempt is made to analyse the views of officials on debt collection period of select units in Table 7.

The Table 7 reveals the debt collection period of Broiler Farms, Layer farms and Hatcheries. It is found that 45 per cent of the farms debt is collected in 20-30 days, 25 per cent of the farms collect their debt in 10-20 days and 30 per cent of the farms collect in 0-10 days. Majority of poultry farms debt collection period lies in 20-30 days which is very high according to poultry industry, because in poultry industry one crop comes in 38-40 days only and debt collection period is almost consuming 2/3rd crop time. Thus, in this period the farmers will be idle without starting any new crop unless they receive the collection.

8. Feed Stock Maintenance

Feed should be available to the birds at all times. Feed needs to be kept dry and its freshness ensured and storing in a cool, dry place. On an average each bird will eat about 110 grams per day. Thus, the feed should be stocked in

Table 9 : Medicines Stock Maintenance

No. of days	Just in Time JIT	1-2 days	2-4 days	Total Farms
Broiler Farms	13	0	0	13
Layer Farms	0	0	5	5
Hatcheries	2	0	0	2
Total Farms	15	0	5	20
Percentage	75	0	25	100

Source : Field Survey

an optimum level by considering the lead time taken for every new purchase. Stock of more feed leads to spoilage of feed and less stock leads to unavailability for feeding. The Table 8 is analysed to present the views of officials on feed stock maintenance of select poultry farms.

The Table 8 reveals that 50 per cent of the poultry farms maintain feed stock of 5-10 days, 10-15 days of feed stock is maintained by 25 per cent of the farms and remaining 25 per cent of the farms maintain feed stock of 1-5 days. The feed cannot be stocked for more days as it will be spoiled due to moisture. Hence, the average stock maintained is 5-10 days.

Hence Poultry farms have to use inventory control techniques like Minimum order level, maximum order level, danger level, order quantity level so as to maintain the inventory to meet the daily use (Choprakarn and Kittit, 2007; Todd H., 1999).

9. Medicines Stock Maintenance

Disease is an important problem in poultry. Although farmers are familiar with the signs and symptoms of disease the underlying causes are less well known. Almost every farmer and most extension workers hold Newcastle Disease (ND) responsible for most deaths; Poultry farms have highly developed and sophisticated respiratory systems. Their heart and breathing rate are faster than humans, and their body temperature is 5 °C higher. Their lungs are connected at the lower ends to a complex series of membrane-enclosed air sacs, which in turn are connected to air cavities in their major skeletal bones. These features contribute to their lightness and flying ability. Thus, proper medical inventory management is important.

The opinions of officials on the medicine stock of select units are presented in the Table 9.

The Table 9 depicts that 75 per cent of the select units follow Just In Time approach and 25 per cent of the farms maintain 2-4 days of Medicines stock. The farms who maintain medicines stock are Layer Farms and Hatcheries because they have give birth vaccination for Hatcheries and regular vaccination at intervals for Layer Farms. Whereas, Broiler farms diagnose regularly the virus and purchase the medicine on JIT approach depending upon the virus infected (S. Macket al., 2000; Akter and Uddin, 2009; Timothy et al., 2003).

10. The Operational Problems Highlighted by The Employees and Proprietors of Poultry Units

The unit incharges were interviewed during the survey and informal discussions were held with them and the following operational problems have been noticed;

- The problem of Poultry is referred to as "Livestock is problem". The critical problem for poultry is in the month of summer. This period is of 70-80 days. In this period the temperature reaches upto 50 degree centigrade and the body temperature of the bird will be 40 degree centigrade which is problem to the birds and which results in high mortality rate. The mortality rate is 10-15 per cent in the summer season.
- The winter season is also a problem. In this season the huge energy is required for birds to maintain the high temperature in the body. This results in higher intake of feed. Normally a bird consumes 110 grams of feed, but in winter season it takes 20-25 grams of extra feed which results in higher feed cost.

- c. Though poultry industry comes under Agriculture sector, but the power tariff is collected as per commercial rates. Thus, this impacts a lot to the poultry farmers. They are not seen at par with other agricultural farmers and they are deprived of tariffs.
- d. The Minimum support price for the Maize is Rs 13000 per tonne, whereas in the unseason this cost rises upto Rs 19000. Here, banks have to come forward to provide the credit facilities to farmers for buying of the feed in the season at Rs 13000 per tonne. By this farmers will be benefitted to a greater extent by reduction in their material cost.
- e. The major difficulty which is faced by select poultry units is shortage of feed ingredients like Maize, Soya, Broken rice and Rice Husk cake which is making the units to create higher funds for working capital.
- f. The other crucial hazard, faced by the select poultry units is the viral problems which are referred as Viscerotropic Velogenic Newcastle Disease (VVND) virus. The two vaccinations meant for this virus are a) Killed vaccine and b) live vaccine. Both vaccines are imported but these vaccines are being not available due to the restrictions of the government and some selfish interest of leaders in poultry medicine market.
- g. In broiler farms the bird is reared for 40 days and for one kilogram of bird the approximate costs incurred are Rs 60. It can be sold in the market for 70-75 rupees per kg. But when the demand is low the bird has been sold for Rs 40 per kg and there will be a huge loss to the farmer where he is not able to recover the cost of production and loosing Rs 20 per kg of bird. Hence, Government has to take some steps in protecting the farmer by setting an supporting price so that he will be in a position to recover this investment.
- h. The poultry units are facing the cultural issues in sale of broiler meat and eggs due to some prohibited consumption in particular religious days which impacts very huge on stock turnover during this period in poultry industry.
- i. The farmers of the select units mainly depend on Middlemen who act as mediators in trading in purchase of their livestock and sell to the retail traders with his marketing network and makes riskless profit. Thus, the main beneficiary is the middleman in poultry industry.
- j. Due to unawareness of the market to the farmers they have to depend on the middlemen and it will have reflection on the collection period. The average collection period for debts is 15-30 days. The production cycle of the poultry industry is 35-40 days and the debt is collected in 15-30 days which is nearly covering more than half of the operating cycle.
- k. Stock of Feed is maintained for 10 days and the lag time is 2-3 days. Once the feed is reached to the minimum level of 5 days they place an order and receive in 2-3 days and they follow Just in Time Approach for medicines.

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