Research Paper

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Farming Performance of Commercial Poultry Farmers

Veterinary

KEYWORDS :

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ABSTRACT

An expost facto research design followed in the present investigation for which 120 commercial poultry farmers (60 layer + 60 broiler farmers) of Rangareddy, Chittoor and East Godavari districts selected randomly to study the impact of Information and Communication Technology (ICT) on farming performance of commercial poultry farmers. The data pertaining to dependent variables viz. ICT utilization and farming performance and independent variables collected with the help of a pre-tested interview schedule developed for the purpose. After collection of data, farmers were divided into three groups based on type of flock i.e. layer farmers, broiler farmers and total farmers for better analysis and presentation of results.

MATERIALS AND METHODS

Farming performance was operationally defined as accomplishment of given tasks in identified components viz. bio-security measures, income through sale of birds, body weight at marketing age, mortality rate, common diseases, record keeping etc measured against preset known standards of accuracy, completeness, cost, and speed.

After careful perusal of relevant literature and intensive consultation with the experts in the field of livestock production, veterinary extension, 21 components which are normally considered as components in Farming Performance were listed out. In order to develop the farming performance index, the list of most suitable components were sent to 40 judges of livestock production and veterinary extension faculty of different universities & experts through mailed questionnaire for their judgment.

The individual attribute wise mean scores and over all mean scores obtained by the following formulae.

$$\text{Mean score of each attribute} = \frac{\text{Total score of each attribute}}{\text{Total number of judges}}$$

$$\text{Overall mean score} = \frac{\text{Total score of all attributes for all judges}}{\text{Total number of attributes X Total number of judges}}$$

FARMING PERFORMANCE INDEX

The overall mean score obtained for each component of farming performance by the judges rating in this present study taken as weightage for that component. The actual scores on each dimension can be computed by dividing score on each dimension by the targeted performance multiplied by their respective weigh ages

The scores on each of the six components were added for arriving at total farming performance index for each respondent

Results

Farming Performance of Commercial Poultry Farmers

Identification of the Components of Farming Performance Index

The farming performance index developed based on the weighted mean scores for various components, obtained from judges, presented in Table 18.

Out of these 21 components, 6 components were identified as most relevant to constitute Farming Performance index through weighted mean score method given by 36 judges out of 40 judges, representing livestock production and veterinary extension disciplines of different universities.

Reliability of the Developed Index

Split half method of reliability was applied and the schedule was administered among 60 poultry farmers in a non-sample area. The calculated Kendall Rank order correlation coefficient was –1. Hence the association between the odd and even statements is reliable.

Validity

The validity of the developed index examined with the help of content validity, deterring how well the contents of index represented subject matter under the study. As all possible items covering universe selected in consultation with experts and field personnel; the present study satisfied the content validity.

Weighted mean score of different components of Farming Performance Index

S. No	Components	Weighted mean Score
1	Selection of commercial hybrids	2.56
2	Disease management – bio security	2.89*
3	Mortality/morbidity rate	2.66*
4	Common diseases	2.63*
5	Feeding practices followed	2.55
6	Average Daily Gain	2.33
7	Body weight at marketing age	2.72*
8	Season of marketing	2.44
9	Price of day- old chicks	2.25
10	Estimated Production	2.56
11	Production technologies available	2.44
12	Average live weight at market point	2.08
13	Available processing technologies	1.91
14	Availability/access to animal health delivery services	1.47
15	Access to extension services	1.97
16	Record Keeping	2.61*
17	Knowledge of Poultry farm management	2.50
18	Adoption level of Poultry Production Practices	2.38
19	Occupation Diversification	1.72
20	Labor involved in man hours	2.16
21	Income	2.88*

(* Components selected for the study (weighted mean score equal or above 2.57)

Thus, the Farming Performance Index was developed with 6 components i.e. bio-security measures, common diseases, mortality rate;body weight at marketing age, income (formsale of eggs, sale of chickens, sale of manure, sale of pullets, estimated net income per cycle/bird) and Record keeping, whose rankings were as follows

Components of the farming performance of commercial poultry farmers

S.No	Component	Weighted Mean	Rank
1	Bio-security measures	2.89	I
2	Income through sale of Birds	2.88	II
3	Body Weight at Marketing age	2.72	III
4	Mortality rate	2.66	IV
5	Common Diseases	2.63	V
6	Record Keeping	2.61	VI

1. Bio-Security Measures

Biosecurity is protectingof poultry flocks from any type of infectious agents such as viral, bacterial, fungal or parasitic. They may become a threat to themselves and their neighbors because of their large size and concentration in one space

Disease transmits through

- Carriers in a flock
- Birds recently acquired from outside flock
- Eggs from infected breeders / flocks
- Human feet, hand and clothes
- Dust, feathers and manure on equipment and supplies such as trucks, egg trays
- Predators, rodents, flies and insects
- Live or contaminated vaccine
- Feed contaminated at manufacturing company
- Water
- Air
- Carcasses of dead birds that have not been disposed off properly
- Contaminated premises through soil or old litter
- Hatcheries

2. Income Through Sale of Birds and Eggs

It was operationally defined as the net income gained by the respondent's through sale of eggs and chicken over a period. The actual score on this dimension computed by dividing the actual performance by targeted performance and multiplied by respective weight given by judges.

3. Body Weight at Marketing

The weight at which the birds sent for marketing for sale or when the dressing percentage is maximum.

The actual score on this dimension computed by dividing the actual performance by the targeted performance and was multiplied by respective weight given by judges

4. Mortality Rate

It was operationally defined as the population mortality rate i.e. percentage of deaths among the exposed. The actual score on this dimension computed by dividing the actual performance by the targeted performance and multiplied by respective weight given by judges.

5. Common Diseases

A common disease is an abnormal condition that affects the body of an organism. It is often construed as a medical condition associated with specific symptoms and signs. It may be caused by factors originally from an external source, such as infectious disease, or it may be caused by internal dysfunctions, such as autoimmune diseases.

The most commonly encountered poultry diseases listed in alphabetical order. Ascarid Worms, Aspergillosis, Blackhead, Botulism, Cage Layer Fatigue, Cannibalism, Capillari, Cecal Worms, Chiggers, Coccidiosis, Erysipelas, E. coli, Fatty Liver, Hemorrhagic Syndrome, Fowl Cholera, Fowl Pox, Fowl Typhoid, Gapeworms, Heximitiasis, Infectious Bronchitis, Infectious Bursal Disease, Infectious Coryza, Lice, Lymphoid Leucosis, Marek's Disease, Mites, Moniliasis, Mycoplasmas, Mycotoxicosis, Necrotic Enteritis, Newcastle Disease, Omphalitis, Pullorum, Quail Bronchitis, Tapeworms, Ticks, Ulcerative Enteritis etc.

The actual score on this dimension can be computed by dividing the actual performance by the targeted performance and was multiplied by respective weight given by judges.

6. Record Keeping

It was operationalized as the level of maintenance of records or registers to record the information of poultry day-to-day operations. The procedure followed by Rath (1984) adopted. The scoring pattern followed, given below

Sl. No	Particulars	Score
1	Health Record	1
2	Farm Inventory Record	2
3	Production Record	3
4	Expenditure Record	4
5	Feeding Record	5
6	Stock Record	6
7	Account Record	7
8	Vaccine Record	8

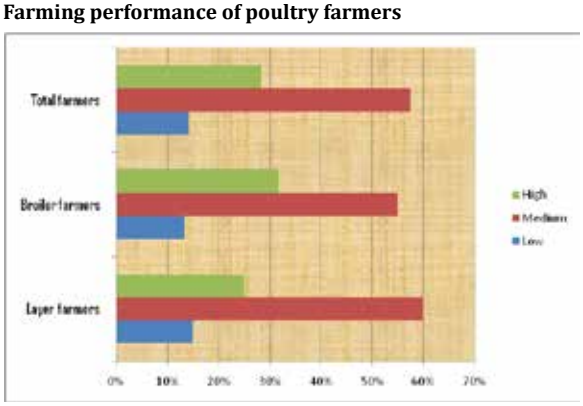
Farming Performance of Commercial Poultry Farmers

The overall farming performance of both layer and broiler farmers as presented in Table revealed that majority of layer (60.00%), broiler (55.00%) and total farmers (57.50%) had medium farming performance and about 15per cent of layer farmers, 13.33 per cent of broiler farmers and 14.17 per cent of total farmers had low farming performance. About 25 per cent of layer farmers, 31.66 per cent of broiler and 28.33 per cent of total farmers had high farming performance.

Distribution of respondents according to their overall farming performance

S No	Category	Layer farmers		Broiler farmers		Total farmers	
		f	%	f	%	f	%
1	Low	9	15.00	8	13.33	17	14.17
2	Medium	36	60.00	33	55.00	69	57.50
3	High	15	25.00	19	31.66	34	28.33
	Total	60	100.00	60	100.00	120	100.00
$\bar{X}$ = 33.53				σ = 5.073			

Farming performance of poultry farmers



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Discussion

FARMING PERFORMANCE OF COMMERCIAL POULTRY FARMERS

Identification of the Components of Farming Performance Index

The components of the farming performance of commercial poultry farmers were identified and found that farming performance can be measured by six components viz. bio-security measures, income through sale of birds, body weight at marketing age, mortality rate, common diseases and record keeping, in the order of ranking.

Farming performance of any enterprise is a comprehensive term, contributing to the betterment of overall performance. Bio-security reflects the mindset of the farmers in adopting recommended practices suggested by scientists, which ultimately leads to minimization of the outbreaks / spread of diseases. Control of diseases in a flock / farm is most important as it directly reflects on profitability of the farm. Effective measures followed scrupulously, especially when more no of birds grown in limited area (intensification).

The efficiency in farming manifested by the income earned. The income generation from a poultry farm is through sale of sale of eggs /chicken / poultry droppings/ manure and pullets. Maximization of profits from a poultry farm is possible through better management. Effective management strategies such as control of diseases, better FCR (feed conversion ratio), remunerative marketing practices etc

In poultry farming, the farmers always aim at achieving best body weights at marketing age, so that good price fetched. The weight gains are influenced by proper feed formulations using the locally available feed ingredients to meet nutritional requirements of birds.

Nutritional requirements vary with type of birds – broilers and layers. Poultry nutrition and feeding are the crux of efficiency in farming, as it accounts for 70 per cent of cost of production. Inclusion of amino acids, vitamins, minerals in the diet significantly influences the production parameters significantly. Mortality rate is the measure of the number of deaths in some population scaled to the size of that of the population per unit time. Mortality rate in poultry sector is vital for the success of the farming. It is always desirable to have mortality rate at minimum so that returns will be high. It directly influences the profits from a poultry farm; key component of farming performance index.

Poultry affected by several diseases – which may be bacterial, viral, parasitic origin and nutritional disorders. The diseases are detrimental to the production and life of the bird. The mortality rate directly affects the farming performance.

Farming performance of commercial poultry farmers

The farming performance of the poultry farmers of the study area revealed that majority farmers had medium to high farming performance among all categories of farmers i.e. layer farmers, broiler farmers and total farmers. It is a good sign that 55 to 60 per cent of farmers had medium farming performance. About 25 to 32 per cent had high farming performance in the study area. Poultry farming is highly intensive in nature and demands high precision in farming. Marginal error may prove to be fatal, substantially affecting the farming efficiency. The respondents' educational status, scientific orientation, rationality in decision-making, achievement motivation and economic orientation contributed for the medium to high farming performance.

REFERENCE

Reddy V P (1997) A study of the entrepreneurial characteristics and farming performance of farmers in Nellore district of Andhra Pradesh of, Ph.D, Thesis ,ANGRAU ,Hyderabad | Sreedevi R(1996) Gender analysis in Manaerial attributed and farming performance in Krishna Godavari Zone of Andhra Pradesh Ph.D Thesis ,A.P.A.U ,Hyderabad |