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A Study on Influencing Factors on Logistic Practice of Egg Poultry in Namakkal District of Tamilnadu

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Abstract: ***Egg Production is one of the premier and lucrative job for agriculture allied sector in India. It has significantly varied in the industrial aspects of different region which pertains to the Geographical location in order to spatial distribution of selling or consuming in nature. The operations of Egg Poultry farm have been highly access with the channels of Distribution. This paper is focused on the practices of operating expenses of Egg Poultry Holders in Namakkal District.***

Keywords: Egg Production, Cost of Production and Returns, Feed Expenses, Egg Price

1.Introduction

Poultry farming in India has transformed from a mere tool of supplementary income and nutritious food for the family to the major commercial activity generating the required revenue. Changing food habits, rising income of the middle class Indian, presence of private players, rising market demand of the Indian poultry produce in the export market are some of the contributing factors to the growth of the industry. The Poultry Business in India is a very old practice and this food industry is one of the important contributors to the economy of rural and semi-urban India. India ranks seventeenth in the world poultry production index. Further, India is the fifth largest producer of eggs and ninth largest producer of poultry meat amongst all the countries. Indian Poultry Industry is 5, 000 years old, since last 4 decades it began to witness remarkable growth from backyard to poultry industry. The layer industry once again is represented more in southern states especially, Andhra Pradesh, Tamil Nadu and Maharashtra producing nearly 70% of the country's egg production. In this connection, logistic practices which will concentrate for transpiration in order to feed carriage and other conveyance for container is required daily basis. A larger number of egg poultry holders who used in hire heavy vehicles and small trucks have utilized. In Namakkal is district is renowned for egg production and utilized higher range of transportation in terms of logistic and supply chain functions.

Statement of the problem

The greater cost efficiency in the South stems both from favorable climate and better management by the integrated poultry operations. Relatively low energy costs for both heating and cooling, hold down other costs in the South. Most of the poultry meat in India is marketed to consumers in the form of live birds-termed as ―wet-market‖, with only a small share of output now marketed as chilled, frozen, or further processed products. The costs of moving live birds, including transport, shrinkage, and mortality costs, severely limit inter-regional movements. As a result, Indian poultry markets are regional, rather than national in scope and there is limited potential for low-cost producers to market their product in higher cost regions. There are many factors that can adversely affect egg production. Unraveling the cause of a sudden drop in egg production requires a thorough investigation into the history of the flock. Egg production can be affected by such factors as feed consumption (quality and quantity), water intake, intensity and duration of light received parasite infestation, disease, and numerous management and environmental factors.

2.Review of Literature

Amit Kumar Singh, Asish Debbarma, Anusmita Baishya, Debajyoti Sarkar, Kiran Prava Mohanta and Anil4 (2021), in their study on "Insights of Improved Backyard Poultry Farming in India with Special Reference to Hilly Regions: A Review" Improved backyard poultry farming may play a vital role in sustainable rural development. Better management practices are anticipated to improve the productivity and profitability of the backyard poultry. Major challenges are unavailability of superior germ palms, poor health services, improper housing and high mortality. Overcoming these challenges to a considerable level in coming couple of years will boost up farmers income from improved backyard poultry husbandry.

Nripendra Pratap Singh, Ninad Bhatt, Sheikh Mohd. Usman and Pramod Chaudhary (2020), in their study on "A detailed review on backyard poultry production and management in India" the rural poultry owners had poor knowledge about feeding, breeding and management practice, which led to poor performance of the birds. Therefore, extension programmes in backyard poultry farming should commensurate so that the poultry owners become more knowledgeable and skilful about the new technologies as well as the recommended practices and can maximize the productivity and consequently the income.

Bk Jha (2020), in his study on "Evaluation of Poultry Strain for Egg Production and Quality Traits in Eastern Hill and

Plateau Region of India" The evaluation of comparative performance of different varieties of chicken indicated that Vanaraja, Kaveri and Divyan Red proved to be superior in terms of egg production and AFE in Eastern Hill and Plateau Region of India. These improved chicken varieties could be introduced in rural areas under backyard poultry rearing system for enhancing income level and providing employment opportunities and livelihood security to the stakeholders.

Kandeeban (2020), in his study on **"**Socio Economic Analysis of Broiler Farms in Perambalur District of Tamil Nadu State**"** The economic analysis of broiler farming has been carried out on the basis of primary data collected from Perambalur District of Tamil Nadu, India. Majority of the respondents were old age persons and they were male. Most of the sample respondents were running broiler business as a main occupation and highly depends on institutional sources of finance. Hence, Government has to declare poultry farming as an agricultural activity and the benefits available to agriculture to be extended to poultry farming also.

U. S. Ami (2020), the study was**"** Marketing System and Efficiency of Egg in Selected Areas of Mymensingh District in Bangladesh**"** Identified some problems and constraints associated with layer farming and egg marketing. The problems faced by the layer farm owners were categorized into economic, technical and marketing. The economic and technical problems were mainly lack of capital, high feed cost, non-availability of day-old-chicks, lack of training facilities, inadequate knowledge of layer diets, irregular supply of electricity, inadequate supply of vaccine and medicine etc. Marketing problems included fluctuation of demand, breakage of eggs, price fluctuations, lack of transportation facilities etc. Problem faced by intermediaries were poor communication and transportation, shortage of capital, lack of storage facilities, breakage of egg, price in-stability, unfavourable condition like herbal, strike, flood and natural calamities etc. Some measures were suggested by the layer farm owner and traders for solving the identified problems.

***Sakunthaladevi S and Anjugam M* (2019),** in their study on "Economic Analysis of Layer Farming in Namakkal District". This study based on primary sources of 90 layer farmers selected as a multistage purposive and random sampling methods were adopted. In TamilNadu, Namakkal district was the largest producers of egg. The researcher has been selected two blocks that is, Namakkal and Mohanur, among this two blocks 15 revenue villages were selected at randomly. The Sample farmers were done based on the total number of birds. The farmers were categorised in two groups Group I is below 50, 000 birds and Group II is above 50, 000 birds. Simple percentage method and Garret ranking techniques were used in this study. The main findings of the study, 64 percent of the farmers were having less than 50, 000 birds and 36 percent of the farmers were having the more than 50, 000 birds. The average number of birds per batch in layer stage in group I and group II was 10129 and 25491 respectively. The cost of production was per 1000 birds was estimated to be Rs.11.73 lakhs for group I farms and it was Rs.12.00 lakhs for group II farms respectively. This study concluded that, both group I and group II farmers were faced the main problems of high feed cost, diseases outbreak and high mortality rate birds, entry of middle man and price fluctuations in market.

3.Objectives of the study

1. To assess the operating expenses by the Egg Farm Holders in Namakkal District.
2. To examine the various cost and production practices of Egg Poultry Holders in the study area

Scope of the study

The outreach of the study would reflect the others areas of egg production which leads to implement and models of optimum utlisation of resources by the small holders and avoid redundant expenditures in order to minimizing cost from operating in Egg Poultry Farm.

4.Methodology of the study

The study is descriptive in nature. The study makes an attempt to analyze the perception of logistic practices and approach of Egg Farm holders in Namakkla District. The primary data were collected from 360 sample respondents in the mass level operating egg farm and utilized transportation in Namakkal Zone of Tamilnadu. The samples were chosen using simple random sampling method. Besides, secondary data were used collected from various sources. Chi -Square test was using for significant levels of selected independent and dependant variables.

Influencing factors on logistic practice of Egg poultry:

Based on the observation from the field, we can conclude the opinion from the Egg Farm Holders in order to effective functions of transport utilization. Besides, the results were drawn from the data had been classified and analyzed with suitable statistical tool i.e., Chi square, Regression.

Table 1: Selected Taluks for Egg Poultry Holders

S. No	Taluks	Respondents	Per cent
1	Tiruchengode	120	33.3
2	Rasipuram	120	33.3
3	Namakkal	120	33.3
		360	100.0

Source-Primary data

The purpose of geographical patterns of land classification and identification of spatial distribution of Poultry farming activities. In particular, Egg production and agriculture activities are carried out by the poultry holder's preference of Egg Produces are identified in taluk level information is required in Namakkal District. Based on the secondary data, Tiruchengode, Namakkal and Rasipuram taluks are mass production and premier of egg in Namakkal District.

Table 2

Shed size * Feed expenses per Hen-After Chick shed				
Shed size		Feed expenses per Hen-After Chick shed		Total
		Rs 600 per week	Rs 700-900 per week	
4001-6000 hen		47	0	47
		100.0%	0.0%	100.0%
6001-8000 hen		0	225	225
		0.0%	100.0%	100.0%
8000-10000 hen		0	88	88
		0.0%	100.0%	100.0%
Total		47	313	360
		13.1%	86.9%	100.0%

Source-Primary data

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	360.000[a]	2	.000
Likelihood Ratio	278.958	2	.000
Linear-by-Linear Association	184.751	1	.000
N of Valid Cases	360		
a.0 cells (0.0%) have expected count less than 5. The minimum expected count is 6.14.			

Source-Primary data

After shifted into chick shed to layer shed, the food distribution is carry out with equipments and sometimes manual. Table shows that the category of Layer shed capacity of 6001-8000 hen where they spent for feed expenses upto Rs 700-800 (225) respondents.

Table 3

Number of Egg per day with labour cost per day				
Number of egg per day		labour cost per day		Total
		Men Rs 800-Women 500	Men Rs 750-Women 450	
10000 limit 400 egg		0	47	47
		0.0%	100.0%	100.0%
10000 limit-800-900 egg		0	127	127
		0.0%	100.0%	100.0%
10000 limit 500-600		82	69	151
		54.3%	45.7%	100.0%
10000 limit-600-700 egg		0	35	35
		0.0%	100.0%	100.0%
Total		82	278	360
		22.8%	77.2%	100.0%

Source-Primary data

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	146.974[a]	3	.000
Likelihood Ratio	178.126	3	.000
Linear-by-Linear Association	36.778	1	.000
N of Valid Cases	360		
a.0 cells (.0%) have expected count less than 5. The minimum expected count is 7.97.			

Source-Primary data

The formulation of Layer design and establishment leads huge cost among the egg poultry rather than other operating and running cost by the poultry holders. This much of cost in need and fulfilled by the yield by hen (egg poultry). The common factor is pen shed course at 10000 hen produce average egg per day is 400-600. This range is going to down, there is a loss of egg poultry holders. Accordingly, the holders who are going to design their layer on the basis of their hen which will utilise the surface is wider and density is limited. Table shows that 26 per cent of the small scale layers where provide the egg for 10000 hen limit is 900 egg (33 out of 63). The same category of hen limit in medium scale is 74 per cent (94 out of 253). The medium scale layer itself produced 10000 limit, 600-700 egg (only 35 persons).

Table 4

Feed expenses per Hen with Shed size					
Feed expenses per Hen-Before Chick Shed		Shed size			Total
		4001-6000 hen	6001-8000 hen	8000-10000 hen	
Rs 200 upto 8 weeks		0	38	44	82
		0.0%	46.3%	53.7%	100.0%
Rs 300 upto 8 weeks		0	47	0	47
		0.0%	100.0%	0.0%	100.0%
Rs 400 upto 8 weeks		0	30	0	30
		0.0%	100.0%	0.0%	100.0%
upto 100 only		47	63	0	110
		42.7%	57.3%	0.0%	100.0%
upto Rs 500		0	47	44	91
		0.0%	51.6%	48.4%	100.0%
Total		47	225	88	360
		13.1%	62.5%	24.4%	100.0%

Source-Primary data

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	225.383[a]	8	.000
Likelihood Ratio	261.377	8	.000
Linear-by-Linear Association	10.482	1	.001
N of Valid Cases	360		
a.1 cells (6.7%) have expected count less than 5. The minimum expected count is 3.92.			

Source-Primary data

Based on the capacity and volume of hen, the shed is designed at the beginning hen shed and chick shed. The chick shed course layer and sometimes manual. The beginning stage, feed distribution is lower than gradual days after they shifted into chick-shed. The beginning stage is calculated the feed expenses for the hen where grow in surface of land with intensive preserve methods by the poultry holders. Table shows that each 50 per cent of the respondents who belong to the category of chick-shed capacity range from 8000-10000 hen where spent for 8 weeks (44 person out of 82 and 44 persons out of 91). Secondly 28 per cent of the respondents who belong to the category of chick-shed capacity range from 6001-8000 hen where spent for Rs 100 only (per day) up to 8 weeks. It is inferred that, a number of hen increased and shed range is wider which leads more feed required.

Table 5: Regression Analysis

Model Summary									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.715[a]	.511	.508	.967	.511	186.230	2	357	.000
a. Predictors: (Constant), Annual income, Main Occupation									
b. Dependent Variable: Feed distribution									

Source-Primary data

Coefficients[a]											
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Correlations		
		B	Std. Error	Beta			Lower Bound	Upper Bound	Zeroorder	Partial	Part
1	(Constant)	-.306	.167		-1.832	.068	-.636	.023			
	Main Occupation	-.005	.070	-.003	-.078	.938	-.143	.132	.206	-.004	-.003
	Annual income	1.027	.056	.715	18.483	.000	.918	1.137	.715	.699	.684
a. Dependent Variable: Feed distribution											

Source-Primary data

Coefficient Correlations[a]				
Model			Annual income	Main Occupation
1	Correlations	Annual income	1.000	-.292
		Main Occupation	-.292	1.000
	Covariances	Annual income	.003	-.001
		Main Occupation	-.001	.005
a. Dependent Variable: Feed distribution				

The purpose of regression analysis where there is finds out to predict the estimate value of more than two variables. Besides, it has to assess the influencing factors among two or more variables. The influencing factors are going to assessed in order to performance by the dependent variables. Table explains about the performance of poultry egg farm practices by feed distribution and expenses. The independent variable annual income where significantly associated with the performance level of feed distribution. But, main occupation has shown negative result of 'it' value (-.078) and significant level is mismatched. (.938). There is no connectivity and direct effect from the main occupation is poultry farm only. Either they have subsidiary occupation or egg poultry is an secondary source of income, they must have distributed feed through equipments and operational activities are measured by advanced or Normal Layer only.

5.Conclusion

The purpose of minimizing operating expenses on egg poultry holders are mostly preferred larger size holders. The reason could behind that they have larger number of external works which is preferred to their business and local conveyance of business with conducive atmosphere. But, at the same time small holders are unable to maintenance of one vehicle instead that can have access with higher vehicle from nearby areas. By and large, the sales practices and sales volume is practiced by the small holders techniques are better than largest size holders based on the study.

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