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Sustainability of Poultry Farm By Adopting Improved Farm Management Practices of Poultry Farmers In Namakkal District

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ABSTRACT

Agriculture and allied activities provides employment opportunities directly or indirectly to 2/4 of Indian population. The poultry industries are one among in the agri-allied sector which is contributing Rs. 7,500 crores to the nation GDP. In these industries, more than 2.5 million peoples are working, they are mostly from rural area. The sustainability of the poultry farm industries depends upon economic, environmental, social and management aspects. The present paper attempts to analyse the economic status of the poultry farmers, their improved management practice towards various types of poultry, investment pattern in poultry farm assets, farmers personal factors, housing of poultry, so on. The researcher has suitably linked these aspects towards poultry farm sustainability and development in the context of improved management practices adopted in poultry production. The statistical tools, percentage analysis, chi-square analysis, average rank analysis have been employed to analysis the data collected from 184 sample poultry farmers in the study area of Nammakkal district. The conclusion drawn based on the finding of the study, which would helpful to the improvement of poultry farm industry, income of the poultry farmers.

Keywords: Sustainability, economic status, poultry farm, farm management practices, Nammakkal District.

INTRODUCTION

The poultry industry is one of the agro-industries in the world. The poultry industry in India is the most rapidly growing segments of the agricultural sector. The industry is concerned with the production of eggs and meat. The poultry constitutes an important item of livestock/animal-husbandry sector of India. The industry provides employment throughout the year on an even basis. The ability to adapt to various areas with varied agro-climatic conditions, low investment and short gestation period are the most attractive features of the poultry industry. The development of the industry through the application of modern science and technology has a significant contribution in improving the socio-economic of rural masses.

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In India, poultry industry has made tremendous progress during the last two decades, which evolved from backyard ventures to a full fledge commercial agro industrial business. Now, India is the third largest producer of eggs and eighth largest producer of broilers in the world. The industry contributes Rs.7, 500 crores to the Gross National product of the country. Likewise, in this industries more than 2.5 million people are working, which is mostly in the rural areas.

The growth of poultry industry has been quite un-even from state to state. Moreover, there is wide variation in the production and consumption pattern of various states. The four states of Andra Pradesh, Maharashtra, Punjab and Tamilnadu jointly accounting for more than 50 percent of the total output of eggs and broilers in the country. But, in the case of broiler production the states of Tamil Nadu, Andra Pradesh, Karnataka, Kerala and Western region of Maharashtra accounts for more than 60 percent of the total production in the country. Currently in India most of the broilers farming units are operating under the system of market integration. However, layer industry in the country has been functioning under un-organized sector.

In the state of Tamilnadu, the poultry industry has witnessed significant growth after the period of 1970. The technical and infrastructure facilities and ideal agro-climatic conditions are the major factors for this. One of the features of development of poultry in Tamilnadu is the over concentration of the industry in certain areas and big dominance of big private entrepreneurs including market integrators. The Namakkal zone is second largest poultry zone and egg Basket of south India. But, in the case of broiler production, Palladom area of Coimbatore district is the major poultry pocket of TamilNadu. The Government agency in the poultry sector viz: TamilNadu Poultry Development Corporation, TamilNadu Veterinary Colleges and research Institute and Department of Animal Husbandry undertake various activities for the development of the industry in the state.

Farming people have their own way of assessing the new technologies released communicated. Majorities of the farmers have a tendency to adopt a practice if it is beneficial to them and have relative advantage over the existing practices.

In such a context, the farming community is exposed to various constraints, obstacles, problems at field level while adopting the practices. These problems play an important role in rejection of innovation at farmers' level.

In the practical situation, these industries are run by big (or) non-farmers who have financially viable. About 80% of small and marginal farmers are out of the Poultry Industries because, their inability to mobilize fund for the establishment the poultry farm, inadequate knowledge to start the poultry farm. Further, the existing poultry farm owners are also suffering due to these problems. In addition, the production and marketing of poultry products, inadequate government support on disease prevention are not properly addressed to them. All these issues would be properly addressed by giving vibrant training to the existing poultry farm owners and the employees working at deferent levels in the farm and also need an effective training to the new farmers who are willing to establish the poultry farm.

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In addition, the common problems like finance, Raw material marketing, labour, power, Technical and management Problems are also faced by the poultry farmers. Due to these problems, many farmers would be afraid to take up new poultry farm (or) many farmers are closing the farm. To manage these problems, the existing farm owners, employees and workers are required vibrant training and it would improve production, productivity and ultimately employment and income. By keeping these aspects in the mind of the researcher, to cope with these problems, the farmers are to be taught about how to deal with these problems, to sustain the poultry industry, employment and income of farmers.

STATEMENT OF THE PROBLEM

The sustainable development of poultry farmers and farms depends upon various aspects such as economic status of the farmers, environmental factors, their investment in poultry farm assets, size of farm, housing the birds, desire control mechanism and other best management practices. Since, various challenges in poultry industry, it is essential to the poultry farmers to be trained in the area of selection of birds, maintaining, housing of poultry, production, marketing so on. Hence the researcher is attempted to analyse the economic status, personal profit of farmers, creation of poultry farm assets and adoption of improved management practice which would help them to identify the key issues and ways and means to improve their income, sustainable development of poultry farm industry.

Objective of the Study

1. To study the Economic status of poultry farmers.
2. To study the poultry farm management practices of poultry farmers.

Scope of the Study

The scope of the present investigation on the sustainable development of the poultry farm by Entrepreneurial Training of farmers would help the farmers to understand the variants technical and non-technical aspects and management practices related to poultry farms. In the present situation, the big farmers are largely engaged in the poultry farm industry than the small and marginal farmers. About 80% of the small and marginal farmers are out of the coverage of poultry farm growing. This is due to the inadequate skill to manage the farm and fear to face the various problems associated in poultry farm industry. Hence, the researcher is to bring out the importance of training to the small and marginal farmers, which would enable them to gain, adequate skill in these areas. 20% of the farmers having the poultry farms, in which majority of the farmers are big farmers and non-farmers. The low percentage of farmers are undertaking poultry farm as an agricultural allied activities, due to the inherent problems in this industries. Further, majority of the farmers are out of the poultry farm industries, which would affects them employment and income. It is due to the lack of proper training in the farm establishment and management practices in the Technical and Non-Technical area. Hence, this study would help to bring more farmers to enter in the poultry industry and it would generate additional income along with their agriculture income of the farmers. Further, this study would also solve the various issues related to the existing poultry farm industry through the means of effective training.

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METHODLOGY USED IN THIS STUDY

(i) **Area of the study**

Namakkal district is a newly formed district, which bifurcated from Salem district, it is functioning from 1997. This district consists of Eight Taluks namely Namakkal, Rasipuram, Thiruchengode, Paramathi velur, Kolli Hills, Sendamangalam and Komarapalayam and Mohanur. For the Administrative purposes, the districts have been divided into 2 Revenue divisions, 8 Taluks, 13 Blocks and 454 villages. Further, the district have also been divided into 10 corporation and municipalities, 24 Town pancyayats and 648 pancyayath villages. Out of Eight Taluks, Namakkal, Thiruchengode and Rasipuram Taluks are major Taluks in which more poultry farms are available. Hence, the researcher has selected the Namakkal district for the study.

(ii) **Sources of data**

In this study, the extensive use of both the primary and secondary data were used. The primary data have been collected from poultry growing farmers as well as non-farmers and the secondary data have been collection from poultry farm owners associations.

(iii) **Tools used for the Analysis of Data:** Frequency Analysis, Chi-Square Analysis and Average Rank Analysis.

(iv) **Sampling design**

The Namakkal District consists of Eight Taluks namely Namakkal, Rasipuram, Thiruchengode, Paramathi velur, Kolli Hills, Sendamangalam and Komarapalayam and Mohanur. Out of the Eighttaluks poultry farms in the seven Talkus excluding Kollihills have been taken for the study. There are 738 poultry farms in the Namakkal district. Hence, the research has selected 25% on total poultry farms of 738. The sample size is 184. The details of sample selection are given below.

Table 1: Sample Size

Sl. No.	Name of the Village	Total no. of Poultry farms	Sample farms
1	Namakkal	408	102
2	Rasipuram	110	28
3	Tiruchengode	100	25
4	Paramathi velur	80	20
5	Sendamangalam	20	5

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6	Kumarapalayam	10	2
7	Mohanur	10	2
8	Kolli hills	--	--
	Total	738	184

Sample size 25% on total poultry farms.

LIMITATIONS OF THE STUDY

1. The area of the study is limited to Namakkal Taluk of Tamilnadu.
2. The research has been undertaken based on the views, opinion and information provided by the farmers and poultry farm owners as they furnished some information from their memory, the accuracy is subject to the recall basis. However, efforts have been taken to minimize the error through checks and cross checks at time of interview.
3. The survey was conducted only in Namakkal Taluk, Tamilnadu State. Hence, the results arrived from the study may or may not be applied to other states of India because the profile of the farmers, geography, development varies from place to place. Further, the survey which was adopted for collecting the data in the study its own limitations.

Review of the study

Md Karul Hasan, Lalit Kumar (2021), bring the causes of changes and sustainability in farm management due to changes in weather and climate viability. Out of 381 samples 67% a higher number of farmers in western coastal zone were influenced by climate changes that are impacts on their farm management.

F. Alder et.al. (2019) in his study farmers personalities and attitudes as risk factors. It explores the evidence for the effect of farmers' attitudes and personalities on dairy cattle health, welfare, productivity and management. This study highlights the need for harmonization of attitudes and personality assessments in future research for sustainability of poultry farm.

Pitesky Maurice et.al. (2019) In this days husbandry practices vary greatly between individual commercial pastured poultry and free-range operations, gaining knowledge across a wide cross-section of producers is necessary to better understand current practices. It is noted in the introduction, primary objective of this study was to develop wider knowledge about feeding

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and lighting practices on commercial free-range and pastured farms. It helps in sustainability of poultry farm.

Payman Salami and Hojat Ahmadi (2010) highlights the changes and trends that likely have an impact on Management Information System concepts, process and implementation. The conclusion of the study reveals that MIS is a subset of overall planning and control activities covering the application of humans, technologies and procedures of the organization. This in tend moves to sustainment of poultry farm.

Malcolm, Bill (1990), portrait that farm management started as field of academic inquiry in the year of 1940s and at the end of the first decade. The major emphases which were to predominate over the ensuing decades had made their debut in the literature. Analyse the ways and means for sustainability of poultry farm.

Analysis and Interpretation

This study analyse the data with simple percentage, chi-square and rank correlation. Following are the analysis made to sustain the poultry farmers.

Percentage Analysis

Table 2 describes the percentage analysis with type of ownership, land property owned, type of ownership, type of occupation, experience in poultry farm occupation, type of ownership, type of investment, initial capacity of birds, and present capacity of birds.

Table 2: Percentage Analysis

Particulars		Number of poultry farmers	Percentage
Type of ownership	Own house	96	52
	Rental house	28	15
	Lease house	60	33
	Total	**184**	**100**
Land property owned	Yes	178	97
	No	06	03
	Total	184	100
Type of ownership	Own land	48	26
	Lease land	82	45
	Rental land	54	29
	Total	**184**	**100**

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Type of occupation	Agriculture only	72	39
	Agriculture and poultry farm	56	30
	Poultry farm only	43	24
	Agriculture,poultry farm and business	13	07
	Total	**184**	**100**
Experience in poultry farm occupation	Less than 3 years	21	11
	4 to 6years	68	37
	7 to 9years	71	39
	More than 10 years	24	13
	Total	**184**	**100**
Type of ownership	Sole proprietorship	71	39
	Partnership	70	38
	Joint stock companies	43	23
	Total	**184**	**100**
Type of investment	Less than Rs. 3,00,000	46	25
	Rs. 3Lakhs to 5 lakhs	54	29
	Rs. 6 lakhs to 10 lakhs	66	36
	More than 10 lakhs	18	10
	Total	**184**	**100**
Initial capacity of birds	2,000-5,000	44	24
	5001-7,000	51	28
	7,001-10,000	65	35
	Above10,000	24	13
	Total	**184**	**100**
Present capacity of birds	10,000-20,000	59	32
	20,001-50,000	43	23
	50,001-1, 00,000	68	37
	Above1,00,000	14	08
	Total	**184**	**100**

It is found from table 2, that among the total poultry farmers, 96(52%) of farmers have own house, 60 (33%) have lease house. 28 (15%) have rental house. It is concluded that majority 52% of the poultry farmers have own house.

Land property

Among the total poultry farmers, 178 (97%) have their own land property, where as 06 (03%) do not own any land property. It is concluded that majority 97% of the poultry farmers

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have their own land property.

From table 2, it is found that, 82 (45%) of them own lease land, 54 (29%) of them have rental land and 48 (26%) of them have their own lands. It is concluded that maximum 45%of the poultry farmers have lease land.

Among the total poultry farmers, 72 (39%) farmers are engaged in agriculture only, 56 (30%) are engaged in agriculture and poultry farm, 43 (24%) are engaged in poultry farm only, 13 (7%) are engaged in agriculture, poultry farm and in business. It is concluded that maximum 39% of the poultry farmers are engaged in agriculture only.

It is found from above table, that among the total poultry farmers, 71 (39%) farmers have experience between 7 to 9 years, 68 (37%) are having experience between 4 to 6 years, 24 (13%) have more than ten years of experience and 21 (11%) have less than three years of experience in the poultry farm occupation. It is concluded that maximum 39% of the poultry farmers are having experience between 7 to 9 years in the poultry farm.

Table 2 shows that among the total poultry farmers, 71 (39%) of farmers are engaged as sole proprietorship, 70 (38%) are engaged as partnership and 43 (23%) are engaged as joint stock companies. It is concluded that maximum 39% of the farmers are doing poultry farming as sole proprietorship.

From table 2 among the total poultry farmers, 66 (36%) poultry farmers have an investments range between Rs. 6 lakhs to 10 lakhs, 54 (29%) have investments range between Rs. 3 lakhs to 5 lakhs, 46 (25%) have less than Rs. 3,00,000 and 18 (10%) have more than Rs.10 lakhs as investments in the poultry farms.It is concluded that maximum 36% of the poultry farmers investments are in between Rs. 6 lakhs to 10 lakhs.

It is found from table 2, that among the total poultry farmers, 65 (35%) poultry farmers have the initial capacity of birds between 7,001-10,000, 51 (28%) have between 5001-7,000, 44 (24%) have between 2,000- 5,000 and 24 (13%) have more than 10,000 birds. It is concluded that maximum 35% of the farmers have the initial capacity of birds between 7,001- 10,000 in their farm.

It is found from table 2, that among the total poultry farmers, 68 (37%) of the poultry farms have present capacity of birds between 50,001- 1, 00,000, 59 (32%) farms have capacity between 10,000- 20,000 birds, 43 (23%) have between 20,001 –50,000 and 14 (08%) have above 1, 00,000 birds as their present capacity in poultry farm. It is concluded that maximum 37% of the poultry farmers have the present capacity of birds between 50,001- 1, 00,000 in their poultry farms.

Priority of the reasons for the farmer's in starting poultry farming

The table 3 describes about the priority of the reasons for the farmers in starting poultry farming. The ranking reasons are classified as profitable business, less water is required for poultry farming, loans are easily available, fodders are supplied at the doorsteps, sales are made at the doorsteps, less risk in maintenance and other reasons.

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Table-3: Priority of the reasons for the farmers in starting poultry farming

Rank / Factors	1	2	3	4	5	6	7
Profitable business	18 (10)	12 (6)	14 (8)	73 (40)	10 (5)	24 (13)	33 (18)
Less water is required for poultry farming	46 (25)	32 (17)	24 (13)	19 (10)	33 (18)	12 (7)	18 (10)
Loans are easily available	13 (7)	62 (34)	21 (11)	12 (7)	16 (9)	20 (11)	40 (21)
Fodders are supplied at the door steps	19 (10)	18 (10)	21 (11)	14 (8)	72 (39)	33 (18)	07 (4)
Sales are made at the door steps	26 (14)	12 (6)	61 (33)	19 (10)	14 (8)	18 (10)	34 (19)
Less risk in maintenance	14 (8)	19 (10)	16 (9)	12 (6)	35 (20)	64 (34)	24 (12)
Others	22 (12)	34 (18)	12 (6)	26 (14)	15 (8)	34 (19)	41 (23)

Note:*The values in brackets are in percentage

It is found from table 3 that 46 (25%) poultry farmers have given top priority to less water is required for poultry farming, 62 (34%) have given second priority to the reason that loans are easily available, 61 (33%) have given third priority as sales are made at the doorsteps and so on as the reasons for the farmers in starting poultry farm.

It is concluded that among the total farmers, the top priority is given to the fact that "less water is required for poultry farming as the reason to start up the farm".

Motivation to start up the farm

The table 4 describes the motivation to start up the farm. It is classified as self, family business, inadequate income from agriculture and others.

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Table 4: Motivation to start up the farm

Motivation	Number of poultry farmers	Percentage
Self	45	24
Family business	63	34
Inadequate income from agriculture	76	42
Total	**184**	**100**

It is observed that maximum 42% of the farmers are motivated to start up the poultry farm due to the fact that there is inadequate income from agriculture.

Number of persons involved in poultry farming activities

The table 5 describes the number of persons involved in poultry farming activities. It is classified as one, two, three and more than four persons.

Table 5: Number of persons involved in poultry farming activities

Number of persons	Number of poultry farmers	Percentage
One	18	10
Two	26	14
Three	51	28
Morethan four	89	48
Total	**184**	**100**

It is concluded that maximum 48% of the poultry farmers have stated that more than four members are involved in poultry farming.

Personal factors and the type of occupation of poultry farmers'.

Hypothesis : The personal factors of the respondents have no significant influence on the type of occupation of poultry farmers.

The table 6 describes the personal factors, chi-square values, p values and their type of occupation of poultry farmers".

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Table 6:Chi-square values- personal factors and types of occupation of poultry farmers'

Personal Factors	Chi-square values	p values	Significant/ Not significant
Age(years)	37.656	0.000	S
Gender	11.335	0.000	S
Educational qualification	57.272	0.034	S
Monthlyincome	78.224	0.000	S
Maritalstatus	88.335	0.005	S
Sizeof thefamily	206.62	0.000	S

*S-Significant(pvalue□□0.05);NS-NotSignificant(pvalue>0.05)

It is found from the table 6 that the hypothesis is rejected (significant) in all the six cases. It is concluded that all the personal factors considered for the study have significant influence on the types of occupation of poultry farmers.

Total investment in poultry farm

Hypothesis: The personal factors of the respondent's have no significant in fluencies the total investment in poultry farm.

The table 7 describes the personal factors, chi-square values, p values and their significance on the total investment in poultry farm.

Table 7:Chi-square values- Personal factors and the total investment in poultry farm

Personal Factors	Chi-square values	p values	Significant/ Not significant
Age(years)	115.748	0.000*	S
Gender	67.891	0.000*	S
Educational qualification	0.547	0.729*	NS

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Monthlyincome	2.787	0.812*	NS
Maritalstatus	75.231	0.005*	S
Sizeof thefamily	84.966	0.000*	S

*S-Significant(pvalue□□0.05);NS-NotSignificant(pvalue>0.05

It is found from the table 7 that the hypothesis is accepted (not significant) in two cases and the remaining four cases the hypothesis is rejected (significant). It is concluded that except educational qualification and monthly income, all other personal factors considered for the study have significant influence on the total investment in poultry farm.

Personal factors and present capacity of birds

Hypothesis: The personal factors of the respondents have no significant influence on the present capacity of birds.

The table 8 describes the personal factors, chi-square values, p values and their significance about the present capacity of birds.

Table 8: Chi-square values- personal factors and present capacity of birds

PersonalFactors	Chi-square values	p values	Significant/ Notsignificant
Age(years)	111.059	0.000*	S
Gender	16.618	0.000*	S
Marital Status	2.109	0.472	NS
Educationallevel	168.213	0.000*	S
Monthly Income	62.206	0.000*	S
Sizeof the family	115.876	0.000*	S

* S-Significant (p value□□0.05); NS-Not Significant (p value>0.05)

It is found from the table 8 that the hypothesis is accepted (Not significant) in one case and the remaining five cases the hypotheses is rejected (significant). It is concluded that except marital status, all other personal factors considered for the study have significant influence on the investments in poultry farms.

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The table 9 describes the personal classification wise average rank and final rank of the poultry farmers on the various factors influencing the reasons for starting poultry farming.

Table 9: Average Rank- Personal factors and the factors influencing the reasons for starting poultry farming

Personal factors			**B1**	**B2**	**B3**	**B4**	**B5**	**B6**
Age(years)	Up to 30years	AR	1.21	2.12	1.23	2.24	2.26	2.15
		FR	1	3	2	5	6	4
	31-40	AR	2.12	2.56	1.84	2.36	3.85	4.25
		FR	2	4	1	3	5	6
Personal factors			**B1**	**B2**	**B3**	**B4**	**B5**	**B6**
	41-50	AR	2.14	1.85	2.96	2.36	3.45	2.67
		FR	2	1	5	3	6	4
	Above50years	AR	1.26	2.89	2.35	4.26	2.45	2.36
		FR	1	5	2	6	4	3
Gender	Male	AR	3.45	5.86	2.56	3.46	4.56	2.12
		FR	3	6	2	4	5	1
	Female	AR	2.15	2.36	4.56	8.96	7.56	5.69
		FR	1	2	3	6	5	4
Marital Status	Married	AR	2.45	3.45	1.26	2.39	4.59	3.59
		FR	3	4	1	2	6	5
	Unmarried	AR	5.96	2.45	3.56	1.56	4.59	3.87
		FR	6	2	3	1	5	4

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Educationa lLevel	No formaleducation	AR	4.36	2.56	2.89	5.89	2.90	2.45
		FR	5	2	3	6	4	1
	Schoollevel	AR	4.59	2.69	3.89	2.56	4.89	3.49
		FR	5	1	4	2	6	3
	College level	AR	2.36	2.45	2.56	2.57	3.59	2.46
		FR	1	2	4	5	6	3
Monthly Income (in Rs.)	LessthanRs. 25,000	AR	1.12	2.45	3.44	3.45	4.98	2.69
		FR	1	2	4	5	6	3
	Rs. 26,000 to Rs. 40,000	AR	4.26	3.89	4.86	2.48	2.96	5.89
		FR	4	3	5	1	2	6
	Rs. 41,000 to Rs. 55,000	AR	5.89	4.96	2.86	3.58	4.18	2.89
Personal factors			**B1**	**B2**	**B3**	**B4**	**B5**	**B6**
		FR	6	5	1	3	4	2
	More than Rs. 56,000	AR	3.56	1.98	2.46	3.57	2.54	2.58
		FR	5	1	2	6	3	4
Size of Family	Less than2	AR	1.24	2.45	2.89	3.45	5.96	2.86
		FR	1	2	4	5	6	3
	3	AR	5.69	5.88	4.15	3.45	2.46	2.56
		FR	5	6	4	3	1	2
	4	AR	4.23	2.56	3.56	4.59	4.58	4.12

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		FR	4	1	2	6	5	3
	5 andabove	AR	2.52	2.56	3.45	4.59	5.89	3.84
		FR	1	2	3	5	6	4

Note: AR-Average Rank FR-Final Rank

It is found from table 9 that the poultry farmers irrespective of their personal classification have given priority to poultry farming is profitable business (B1) as the top priority, followed by less water is required for poultry farming (B2) when compared to other factors.

It is concluded that among the various factors influencing the reasons for selecting poultry farming, the poultry farmers irrespective of their personal classification have given top priority to profitable business, when compared to all other factors.

Type of roofing

The table 10 describes the type of roofing used in the poultry farm house. It is classified as tiled and asbestos roving of poultry farm house.

Table 10: Type of roofing

Type of roofing	Number of poultry farmers	Percentage
Tiled	89	48
Asbestos	95	52
Total	**184**	**100**

It is concluded that majority 52% of the farmers are using asbestos roofing in their poultry farm houses.

Type of floor used

The table 34 describes the type of floor used in the poultry farm house. It is classified as concrete flooring and earth.

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Table 11: Type of floor

Type of floor	Number of poultry farmers	Percentage
Concrete floor	112	61
Earth	72	39
Total	**184**	**100**

It is concluded that majority 61% of the farmers are using concrete floor in the poultry farm house.

System of rearing birds

The table 12 describes the system of rearing birds in their poultry farm. It is classified as all-in-all out and multiple rearing System of rearing birds.

Table 12: System of rearing birds

System of rearing birds	Number of poultry farmers	Percentage
All-in-all out	86	47
Multiple rearing	98	53
Total	**184**	**100**

It is concluded that majority 53% of the farmers are using multiple rearing system of birds in their farms.

Type of rearing method

The table 13 describes the type of rearing method adopted by the poultry farmers in their farm house. It is classified as deep litter, floor cage and raised platform.

Table 13: Type of rearing method

Type of rearing method	Number of poultry farmers	Percentage
Deep litter	46	25
Floor cage	61	33
Raised platform	77	42
Total	**184**	**100**

It is concluded that maximum 42% of the farmers are using raised platform as the type of rearing method adopted for the birds in their poultry farm.

Materials used in deep litter

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The table 14 describes the materials used in deep litter system in chicken waste man put. It is classified saw dust, groundnut shells and paddy husk.

Table 14: Materials used in deep litter system

Materials used in deep litter	Number of poultry farmers	Percentage
Saw dust	20	43
Groundnutshells	12	26
Paddy husk	14	31
Total	**46**	**100**

It is concluded that maximum 43% of the poultry farmers are using saw dust as the material in the deep litter system of poultry management.

Type of drinker used in deep litter

The table 15 describes the type of drinker used in deep litter. It is classified as automatic drinker, pan & jar and both.

Table 15: Type of drinker used in deep litter

Type of drinker used in deep litter	Number of poultry farmers	Percentage
Automatic drinker	17	37
Pan and jar	16	35
Both	13	28
Total	**46**	**100**

It is concluded that maximum 37% of the farmers are using automatic drinker in the deep litter method of rearing birds.

Type of poultry cage drinker used in the poultry farm

The table 16 describes the type of poultry cage drinker used in the poultry farm. It is classified as linear and nipple drinker.

Table 16: Type of cage drinker used in poultry farm to feed water to chick

Type of drinker used in cage	Number of poultry farmers	Percentage
Linear	28	46
Nipple drinker	33	54
Total	**61**	**100**

It is concluded that majority 54% of the farmers are using nipple cage drinker in their poultry

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farm to feed water to chick.

Type of drinker in raised platform

The table 17 describes the type of drinker used in the raised platform in the poultry farm. It is classified as linear and nipple drinker.

Table 17: Type of drinker used in case of raised platform

Type of drinker used in case of raised platform	Number of poultry farmers	Percentage
Linear	46	60
Nipple drinker	31	40
Total	77	**100**

It is concluded that majority 60% of the poultry farmers are using linear drinker in case of raised platform as a method of rearing Birds.

Methods for brooding chicken with Temperature requirements

The table 18 describes the method of brooding of chicks with required Temperature. It is classified as electrical, charcoal and gas brooder, which the methods are used to brood chicks.

Table 18: Method of brooding

Method of brooding	Number of poultry farmers	Percentage
Electrical brooding	76	41
Charcoal brooding	79	43
Gas brooder	29	16
Total	**184**	**100**

It is concluded that maximum 43% of the poultry farmers are using char coal as the method of brooding to chicks in their poultry farms.

Method of artificial lighting used in egg production

The table 19 describes the method of artificial lighting, used in the poultry house for egg production. The lights are classified as fluorescent lamp and CF lamp.

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Table 19: Method of artificial lighting

Method of artificial lighting	Number of poultry farmers	Percentage
Fluorescent lamp	86	47
CFlamp	98	53
Total	**184**	**100**

It is concluded that majority 53% of the poultry farmers are using CF lamp as the method of artificial lighting in their poultry farms for egg production.

Sources of feed used for birds

The table 20 describes the sources of feed used to grow birds. The feeds are provided by their own or buy it from outside. Hence, it is classified as own feed and company feed that are used for birds.

Table 20: Sources of feed used

Sources of feed used	Number of poultry farmers	Percentage
Own feed	88	48
Company feed	96	52
Total	**184**	**100**

It is concluded that majority 52% of the poultry farmers are using the company feed to their birds.

Type of feeder Equipment's are used in deep litter

The table 21 describes the type of feeder used in deep litter. It is classified as linear, round feeder and trough feeder.

Table 21: Type of feeder used in deep litter

Type of feeder used in deep litter	Number of poultry farmers	Percentage
Linear	12	26
Round feeder	21	46
Trough feeder	13	28
Total	**46**	**100**

It is concluded that maximum 46% of poultry farmers are using round feeder in thir poultry

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farm.

Type of feeder used in cage drinker

The table 22 describes the type of feeder used in cage drinker. It is classified as linear, round feeder and trough feeder.

Table 22: Type of feeder used in cage

Type of feeder used in cage	Number of poultry farmers	Percentage
Linear	12	20
Round feeder	20	33
Trough feeder	29	47
Total	**61**	**100**

It is concluded that maximum 47% of the poultry farmers are using trough feeder poultry farm to feed birds.

Type of feeder used in raised platform

The table 23 describes the type of feeder used in raised platform. It is classified as linear, round feeder and trough feeder.

Table 23: Type of feeder used in raised platform

Type of feeder used in raised platform	Number of poultry farmers	Percentage
Linear	46	60
Round feeder	21	27
Troughfeeder	10	13
Total	**77**	**100**

It is concluded that majority 60% of poultry farms are using linear feeder in their raised platform poultry house.

Type of feeding system used in raised platform

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The table 24 describes the type of feeding system in raised platform. It is classified as manual, semi automatic and automatic.

Table 24:Type of feeding system used in raised platform

Type of feeding system used in raised platform	Number of poultry farmers	Percentage
Manual	26	34
Semiautomatic	39	50
Automatic	12	16
Total	**77**	**100**

It is concluded that majority 50% of poultry farmers are using semi automatic method of feeding system in the farms raised platform poultry house.

Vaccination/Preventive medicine

The table 25 describes the practices of poultry farmers, to apply vaccination/preventive medicine to the sick birds. The preventive messages can be applied sick birds through farmers them self (or) by using vaccinators or through veterinary doctors. Hence, it is self, vaccinators and veterinary doctors.

Table 25: Vaccination/Preventive medicine

Vaccination/Preventive medicine	Number of poultry farmers	Percentage
Self	56	30
Vaccinators	27	15
Veterinarydoctors	101	55
Total	**184**	**100**

It is concluded that majority 55% of the poultry farmers are vaccinating to the birds through veterinary doctors.

Use of Routine spray of disinfectants

The table 26 describes whether the poultry farmers are practicing the use of disinfectants sprays, water sanitation to keep the clean poultry house and healthy birds. The opinion/options are classified as “yes” or “no”.

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Table 26: Routine spray of disinfectants and water sanitation

Routine spray of disinfectants and water sanitation	Number of poultry farmers	Percentage
Yes	184	100
No	-	-
Total	**184**	**100**

It is concluded that all the (184) 100% poultry farmers are following the routine spray of disinfectants and water sanitation methods to keep the clean poultry house and healthy birds.

Practice of keeping records/accounts

The table 27 describes whether the practice of keeping poultry farm records/accounts is followed by the farmers. It is classified as "yes" and "no".

Table 27: Practice of keeping records/accounts

Practice of records/accounts	Number of poultry farmers	Percentage
Yes	94	51
No	90	49
Total	**184**	**100**

It is concluded that majority 51% of the poultry farmers are maintaining records/accounts in the poultry farms.

Findings

Objective : To study the economic status of poultry farmers

Results relating to Percentage Analysis.

- Majority (52%) of the poultry farmers have own house.
- Majority (97%) of the poultry farmers have their own land property.
- Maximum (43%) of the poultry farmers have lease land.

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- Maximum (39%) of the poultry farmers are engaged in agriculture only.
- Maximum (39%) of the poultry farmers are having experience between 7 to 9 years in the poultry farms.
- Maximum (39%) of the poultry farmers are doing proprietorship method
- Maximum (36%) of the poultry farmers investments are between Rs. 6 lakhs to 10 lakhs.
- Maximum (35%) of the farmers have the initial capacity of birds in between 7,001- 10,000 in their farms.
- Maximum (37%) of the poultry farmers have the present capacity of birds in between 50,001- 1, 00,000 in their farms.
- Among the total farmers, the top priority is given to the fact that "less water is required for poultry farming as the reason to start up the farm".

Results relating to Chi-square Analysis.

- All the personal factors considered for the study have significant influence on the types of occupation of poultry farmers.
- Except educational qualification and monthly income, all other personal factors considered for the study have significant influence on the total investment in poultry farm.
- Except marital status, all other personal factors considered for the study have significant influence on the investments in poultry farms.

Results relating to Average Rank Analysis

- Among the various factors influencing the reasons for selecting poultry farming, the poultry farmers irrespective of their personal classification have given top priority to poultry farming is profitable business, when compared to all other factors.

Objective : To study the poultry farm management practices of poultry farmers

Results relating to Percentage analysis

- Majority (52%) of the poultry farmers are using asbestos roofing in the poultry house.
- Majority (61%) of the poultry farmers are using concrete floor in the poultry house.
- Majority (53%) of the poultry farmers are using multiple rearing systems of birds in their farm.
- Maximum (42%) of the poultry farmers are using raised platform as the type of rearing method adopted for the birds in the poultry farm.
- Maximum (43%) of the poultry farmers are using saw dust as the material in the deep litter system of poultry management.
- Maximum (37%) of the poultry farmers are using automatic drinker in litter method of rearing birds.
- Majority (54%) of the poultry farmers are using nipple case drinker in their poultry farm to feed water to chick.
- Majority (60%) of poultry the farmers are using linear drinker in the platform as a method of rearing birds.
- Maximum (43%) of the poultry farmers are using char coal as the method of brooding to chick in the poultry farms.

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- Majority (52%) of the poultry farmers are using CF lamp as the method of artificial lighting in their poultry farms for egg production.
- Majority (52%) of the poultry farmers are using the company feed for the poultry farms.
- Maximum (46%) of poultry farmers are using round feeder as the type of feeder used in deep litter.
- Maximum (47%) of poultry farmers are using trough feeder as the type of feeder used in cage rearing type of birds.
- Majority (60%) of poultry farmers are using linear feeder as the type of feeder used in raised platform.
- Majority (50%) of poultry farmers are using semi automatic method of feeding system in the farms in case of raised platform.
- Majority (55%) of poultry farmers are vaccinating through veterinary doctors.
- All the farmers are following the routine spray of disinfectants and water
- sanitation methods.
- Majority (51%) of the farmers are maintaining records/accounts in the farms.
- Majority (35%) of the farmers maintain production record in their farm.
- Majority (89%) of poultry farmers store the eggs in paper tray.
- Majority (57%) of poultry farmers have adopted sprinklers to reduce heat during summer.
- Majority (85%) of poultry farmers have adopted bio security measures in their farm.
- Majority (90%) of poultry farmers have adopted metal fencing in their farms.

Conclusion

The poultry farmers have to be much more educated about the modern methods used in poultry farming. The usage of automatic drinkers, fully automatic layer poultry farms have to be adopted, so as to minimize the time and labour. It also prevents water contamination and ensures hygienic condition for the birds and keeps the environment eco-friendly free from odor. Spreading of awareness about e- platform in information technology relating to poultry farming and other activities will lead to sell the products through online marketing. The feeds for the poultry farms have to be available at the lowest cost and necessary infrastructural facilities have to be provided to the farmers for storage and maintenance by the government. Adequate training, seminars have to be conducted to educate the farmers regarding maintenance of farming. This type of training will only enhance for growth, maintenance, disease diagnosis, vaccination, compost preparation are very much essential, thereby the skills acquired will help them to become a successful entrepreneur in the poultry farm in the long run.

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