A STUDY OF POULTRY ENTREPRENEURS IN AJMER AND JHUNJHUNU DISTRICT OF RAJASTHAN

राजस्थान के अजमेर और झुंझुनूं जिले में कुक्कुट उद्यमियों का अध्ययन

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M.V.Sc.

THESIS

DOCTOR OF PHILOSOPHY

(Livestock Production Management)

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By

Arun Kumar Jhirwal

M.V.Sc.

2016

Rajasthan University of Veterinary and Animal Sciences, Bikaner

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CERTIFICATE-I

Date…...……

This is to certify that **Dr. Arun Kumar Jhirwal** had successfully completed the **comprehensive examination** held on …… as required under the regulations for **Ph.D. degree.**

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Date.....……

This is to certify that this thesis entitled “A STUDY OF POULTRY ENTREPRENEURS IN AJMER AND JHUNJHUNU DISTRICT OF RAJASTHAN’’ submitted for the degree of Doctor of Philosophy in the subject of Livestock Production Management embodies bonafide research work carried out by **Dr. Arun Kumar Jhirwal** under my guidance and supervision and that no part of this thesis has been submitted for any other degree. The assistance and help received during the course of investigation have been fully acknowledged. The draft of the thesis was also approved by the advisory committee on ……..

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This is to certify that the thesis entitled "**A STUDY OF POULTRY ENTREPRENEURS IN AJMER AND JHUNJHUNU DISTRICT OF RAJASTHAN**" submitted by **Dr. Arun Kumar Jhirwal** to Rajasthan University of Veterinary and Animal Sciences, Bikaner, in partial fulfillment of requirements for the degree of Doctor of Philosophy in the subject of Livestock Production Management after recommendation by the external examiner was defended by the candidate before the following members of the examination committee. The performance of the candidate in the oral examination on his thesis has been found satisfactory; we therefore recommend that the thesis be approved.

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CHAPTER - I

INTRODUCTION

Poultry, in India, in the pre-independence era were by and large practiced as a backyard venture. Poultry farming is an age old business in India, modern poultry breeding started in 1970 and large scale integrators have become prominent in last decade.Indian poultry sector has been growing at around 8-10% annually over the last decade with broiler meat volumes growing at more than 10% while table egg at 5-6% driven by increased domestic consumption and this growth trend likely to continue for the present decade as demand has been growing steadily on back of favourable socio economic factors like healthy GDP growth, rising purchasing power, changing food habits and increasing urbanization.(ICRA,2013).

Poultry industry contributes about 0.77% of the national GDP and ~10% of the livestock GDP and provides employment to over five million people in the Country. Poultry sector is dubbed as the one having highest employability per unit of investment. The Indian poultry sector with 7.3% growth in poultry population, has witnessed one of the fastest annual

growth of about 6% in eggs and 10% in meat production over the last decade amongst all animal based sectors. India produces 73,890 million eggs and 2.68 million tonne of poultry meat a year. The market is estimated to be worth about Rs 90,000 crore. Per capita chicken consumption in India has been on the rise, with eating habits changing predominantly in the metro cities (ET Bureau, 2014). Despite such progress, the average per capital availability is still merely 58 eggs and 2.6 kg of poultry meat against the recommended levels of 180 eggs and 11 kg meat per annum. It has been estimated that under moderate growth scenario of 6% per annum in the Country's GDP, by 2050, the demand for meat and eggs is likely to shoot up to 18 and 9 MMT, respectively. (CARI Vision 2050).

The poultry farming in India occupies an important position due to its enormous potential to bring about rapid economic growth, particularly benefiting the weaker sections due to its low investment requirement and short gestation period. The poultry, which was considered as a backyard proposition in the early 60's has now been transformed into a strong agro-based commercial activity having tremendous employability and income generation potential.

Omonona and Oni (2004) mentioned that poultry was one of the quickest ways for rapid increase in protein supply in the short run. Poultry production provides income and employment opportunities, particularly for rural women, small and marginal farmers, weaker sections of the community and educated unemployed youth.

The poultry sector in the Country during the last ten years has witnessed cyclic boom and burst phenomena due to accelerating factors such as high demand for poultry products as a result of overall economic growth and consequent rise in

incomes, investments from multi-national food giants, disintegrating joint family system leaving limited scope for home cooking etc. Global growth in poultry industry is fuelled by growing population, urbanization, income growth, growing middle class and increased awareness about health benefits (Sridharan and saravanana, 2013).

The growth in poultry sector has been highly skewed in favour of some well defined geographical boundaries termed as ‘poultry belts’ whereas most of the remaining parts of the Country suffer from inadequate supplies and high prices of poultry products. Therefore, technological support is crucial for the development and consistent growth of the poultry sector to protect and safeguard the interests of all stakeholders in the poultry value chain particularly the more vulnerable small poultry holders throughout the Country.

During the last 40 years, especially since the early 70’s, the Indian poultry industry has made remarkable progress in all aspects of production. In India a systematic effort was made by poultry industry to acquire, assimilate and adapt the latest technologies from all over the world in production related areas. Today, India is the only country in the developing world, which has the capability and technology to produce all the essential inputs required for successful poultry farming.

The poultry sector in India has undergone major shift in structure and operation during last two decades transforming from a mere backyard activity into a major commercial activity with presence of large integrated players with successful implementation of contract poultry farming on a large scale .The transformation involved sizeable investments in breeding, hatching, rearing and processing activities.

In India, Farmers have moved from rearing country birds in the past to rearing hybrids such as Hyaline, Shaver, Babcock, Ross, etc. which ensure faster growth of chicks, low mortality rates, excellent feed conversion and sustainable profits to the poultry farmers.

Importance of Entrepreneurship:-

The entrepreneurs are key persons of any country for promoting economic growth and technological change. The appearance of their activities, i.e. the development of entrepreneurship is directly related to the socio-economic development of the society. In India, after independence and onwards, the government decided to pursue the path of state sponsored and planned economic development. This does not mean that individual or group enterprise and initiative did not have any role to play; but that these will be assisted, guided and regulated by the state in various ways, so that their activities can come to some results in the form of economic transformation along the lines considered appropriate and desirable by the state. The idea behind this was that the persons who have no financial resources or managerial background could be induced to take small-scale industries and thus, small industries could be effective tools for widening the entrepreneurial base in the country. It may, in this background, be that the government introduced the comprehensive assistance program for small-scale industries.

In the recent years, entrepreneurship in India has been a new impetus for economic development. Micro-entrepreneurial ventures are considered to be the most critical factors that would help both urban and rural population

through the creation of jobs, rescue out of unemployment and poverty and thereby impact upon developing skills, self-esteem and self-sufficiency. With the changing global scenario, entrepreneurship has emerged in the forefront. The business owners are continuing to demonstrate economic powers worldwide.

According to the Global Entrepreneurship Monitor (GEM), one in eleven (8.9%) is involved in entrepreneurship across the globe and India occupies the second position among the 22 countries where 14.1 percent of individual have ventured into entrepreneurship (GEM, 2014). The increase in the level of entrepreneurial activity among individual increases as levels of education rise especially among those who go beyond secondary education. Individuals, especially those belonging to the low-income strata and who have no other option for employment, are taking to entrepreneurship not only to meet the survival needs of the family but also due to low barriers of entry and flexibility (Ravichandran, 2015).

STATEMENT OF THE PROBLEM

Because of the quite laudable efforts and promotional and new economic policies, poultry enterprises have emerged as a vital and dynamic sector of the economy. It has widened its operational ambit by entering into various non–traditional areas and there will be substantial increase in number of poultry enterprises. In last decade, poultry enterprises in Ajmer and Jhunjhunu district had fluctuated business compared to other enterprises. However, the fact is that most of them are not sustainable in order to utilize the potential and keep their growth continuum. It is necessary to formulate strategies suitable for stimulating, supporting and sustaining the development of poultry entrepreneurship. Such a strategies need to be in

congruence with realities and especially take cognizance of that poultry entrepreneurs face within current economic system of liberalization and globalization (GATT/WTO POLICIES).

In livestock sector poultry farming have very much importance. Poultry farming not only meet the nutritional requirement of the country, but a source of income and reduction of unemployment also. With the passage of time use of product obtained from poultry farming is increased. But however, somewhere this sector of poultry farming is neglected by the policy makers and by the people, hence this result in the closing of poultry farm and increasing in unemployment and market price of poultry product goes on increasing (Rehman et al., 2012).

As a result of spirited efforts of the Government and N.G.O's, there was phenomenal growth in the number of poultry enterprises state during 2000-2010. The irony of the situations is that a good number of the poultry entrepreneurs, who have set up their small scale enterprises with great optimism, are not able to achieve their aspirations. They have to face a plethora of problems in the course of promotion and development of their units such as lack of financial assistance and accessibility to credits. The state government has designed special packages of additional benefits and incentives to attract and assist poultry entrepreneurs.

Specific Objectives of the Study:

The present study was conceived with general objective of measuring the management efficiency of the poultry owners of Ajmer and Jhunjhunu districts of Rajasthan state. The specific objectives of the study were as under :-

I. To study the personal, socio-economical, communicational and psychological characteristics of the poultry entrepreneurs.
II. To study the knowledge level of poultry entrepreneurs about recommended management practices of poultry enterprises.
III. To study the extent of adoption of poultry management practices by the poultry entrepreneurs.
IV. To study the entrepreneurial behavior of poultry owners.
V. To study the relationship between the profile of the poultry entrepreneurs and their knowledge level about poultry management practices.
VI. To elicit suggestions to the poultry entrepreneurs to overcome constraints of poultry management practices.

Significance of the Study:

The population of the world is growing at an alarming rate, especially in the Asian countries. India is the second largest populated country in the world. The population has crossed the mark of 100 crore. Although there are large numbers of projects for agricultural development, there is no surety of filling the number of empty stomachs of people of our country in the years to come. It is a challenge for us to solve this food security problem in our country. Searching other areas of food

production can solve this problem. Poultry is also another way of getting food and food security in India. Apart from food security it has provided employment to about 1.5 million people. Livestock sector not only provide essential proteins and nutritious human diet through milk, eggs, meat, etc but also play an important role in utilization of non-edible agriculture by product.

Animal Husbandry sector provides large self-employment opportunities. Twenty five million people are estimated to be employed with the livestock rearing activity (Anonymous, 2010). This sector is playing very important role in supporting the rural economy. Poultry farming is one of those most fertile areas to ease out the enormous amount of demographic pressure on agriculture. To a considerable extent, the poultry production is positively affected by adoption of improved poultry management practices by the entrepreneurs. The poultry entrepreneurs should undertake cost cutting measures. As a matter of fact, 110 gms of feed should contain 17 percent (%) to 18 percent (%) protein. As bird consume 120 to 130 gms of feed, the percentage of protein in the feed can be reduced there by the cost of feed can be reduced by Rs 100 per tonne. Besides this, measures should be taken to increase the egg output. If the output of egg is just increased by one per cent, large number of benefits occurs to the farmers. It is therefore, one of the several important ways of increasing the production of poultry.

With rapid growth in population, providing food security has taken the Government as well as planners in quandary. Increasing production in agriculture front has become a matter of concern for every Government due to limited land availability. It cannot be gainsaid that, “Agriculture production alone can meet the demand of human population”. In this

context, production through poultry sector has become centre stage as means of alternative source protein but for healthy adoption of improved management practices of poultry enterprise, one should have knowledge about it. The present study i.e. “A STUDY OF POULTRY ENTREPRENEURS IN AJMER AND JHUNJHUNU DISTRICT OF RAJASTHAN’’ is an attempt in this direction.

Findings of this study will be a great help to the extension agencies (State & Central level), policy makers and administrators in arranging the appropriate training programs which aid the poultry entrepreneurs knowledge about the poultry management practices and help them to increase their production and get more sustainable livelihood in rural areas.

HYPOTHESIS OF THE STUDY:

On the basis of the objectives of the study, null hypothesis was formulated as follows,

H_0: There is no relationship between selected personal, socio-economic, communicational and psychological characteristics of the poultry entrepreneurs and their knowledge level about poultry management practices.

LIMITATIONS OF THE STUDY:

- Though all possible precautions were taken to make the study more precise. The study was restricted only to Ajmer, Kishangarh, Sarwar and Beawar tehsils of Ajmer and Kethri, Chirawa and Nawalgarh tehsils of Jhunjhunu districts of Rajasthan state.

- The diagnostic study was confined to only 175 poultry entrepreneurs of the selected tehsils only.

-The study was limited to only some of the selected characteristics of the respondents included in this study.

-The findings were based on verbal expression and responses of the respondents.

CHAPTER - II

REVIEW OF LITERATURE

It is mandatory on the part of any researcher to go in depth of the earlier studies conducted in the field of investigation, which gives the comprehensive knowledge about the work done and findings obtained in past. It is also necessary in developing conceptual framework and selection of appropriate design for the study. The literature reviewed so far has clearly revealed that a few studies on some of the aspect under present investigation are available. As the literature having direct bearing on different aspects of the present study is limited although, the references having indirect bearing are also reviewed. Hence the chapter takes the care of scientific procedure adopted for the present investigation to draw rational, logical and meaningful inferences. A brief account of such literature reviewed has been presented under the following heads:

2.1 The profile of the poultry entrepreneurs.

2.2 Extent of adoption of poultry management practices by poultry entrepreneur.

2.3 Knowledge level of poultry entrepreneurs about poultry management practices.

2.4 Relationship between the profile of the poultry entrepreneurs and their knowledge level about poultry management practices.

2.5 Constraints faced by the poultry entrepreneurs in adoption of poultry management practices.

2.6 Suggestions to overcome the constraints.

2.1 THE PROFILE OF THE POULTRY ENTREPRENEURS

INDEPENDENT VARIABLES

Generally, it is found that all the poultry entrepreneurs residing in the same community do not adopt improved technology to the same extent. This might be due to the difference in their personal, socio-economic, communicational and psychological characteristics which are related to the adoption of new technology and affect the management efficiency of the respondents. Factors which affect this phenomenon are discussed as under:

2.1.1 Age

Chauhan and Patel (2003) in their study on entrepreneurial uniqueness of poultry entrepreneurs reported that more than three-fifth (63.75 per cent) of the poultry entrepreneurs belonged to middle age group, while 26.25 per cent and 10.00 per cent belonged to young and old age group, respectively. Patel (2005) also reported the same results.

Khalache *et al*. (2003) studied “socio-economic profile of the backyard poultry rearing farmers in the drought prone area” and reported that half (50.67 per cent) of the poultry farmers belonged to middle age group followed by old age (25.33 per cent) and young age (24.00 per cent) group, respectively.

Rai and Saharia (2004) reported that three-fifth (60.50 per cent) of the respondents were middle aged as against 24.00 per cent and 15.50 per cent being older and young aged, respectively.

Thorat (2005) revealed that majority (76.36 per cent) of the respondents were from middle age group, while 12.73 per cent of the respondents belonged to young age group and 10.91 per cent respondents belonged to old age group. Same results were also reported by Toppo *et al*. (2005).

A. Razzaq *et al*. (2011) reported that 49.00 per cent of the respondents were middle aged as against 37.40 per cent and 28.00 per cent being young and old aged, respectively.

Adebayo (2012) pointed out that majority (70.80%) of the respondents were between the age range of 31-50 years which could be regarded as middle age, only few (6.40%) could be regarded as fairly old i.e. above 50 years and 8.60% were relatively young (below 21 years).

B.G. Nath *et al*. (2012) revealed that 50% of the poultry farmers were old which was followed by middle (30%) and young (20%) farmers.

N. A. Jatto (2012) found that majority of the farmers were relatively young and still in their active age. The implication is that younger farmers are likely to adopt new innovation faster than the older ones.

K. J. Ankuya *et al*. (2014) stated that most of the poultry farmers (70 %) were between 31 to 45 years i.e. belonged to middle age group.

Esiobu *et al*. (2014) reported that majority (81.67%) of the poultry egg farmers fell within the age bracket of 41-50 years, 13.33% of them fell within the age bracket of less than 40 years and 5.00% fell within the age bracket of 51 years and above.

Reviewing of above studies revealed that majority the respondents were in middle age group.

2.1.2 Education

Nimbalkar (1998) in his study on poultry entrepreneurs with special references to production, productivity and management aspects observed that about two-third (64.00 per cent) of the poultry entrepreneurs were educated upto secondary and above level.

Patel (1999) revealed that majority (64.29 per cent) of the poultry farmers had college level education, while 34.28 per cent were having secondary level of education. Only 1.43 per cent of the respondents were having primary level of education.

Khalache *et al.* (2003) reported that 29.33 per cent of the poultry farmers had primary level of education followed by 26.67 per cent with secondary,16.00 per cent with pre-primary, 13.33 per cent with higher secondary, 12.00 per cent with no formal education and 2.67 per cent with college level education.

Rai and Saharia (2004) reported that less than two-fifth (38.50 per cent) of the respondents were illiterate, while 25.00 per cent, 13.50 per cent, 12.00 per cent, 8.50 per cent and 2.50 per cent of them had primary, middle, high school, higher secondary and college level of education, respectively.

Thorat (2005) in his study reported that nearly two-fifth (39.09 per cent) of the poultry entrepreneurs were having college level education followed by 34.55 per cent and 19.09 per cent of the respondents which were having education up to higher secondary and secondary level, respectively. Only 7.27 per cent of them were found with primary level of education.

A. Razzaq *et al*. (2011) revealed in their study that majority (73.33) of poultry farmers were educated upto matric level and above.

Olagunju F. I. *et al*. (2011) reported in their study that about 15.0 per cent of the poultry farmers had no formal education while 60 per cent had up to secondary school education.

Oyebanjo Olumayowa *et al*. (2011) reported that a larger proportion of the poultry farmers (98.6%) had, at least, primary education. This is a reflection that poultry production requires some levels of formal education to be able to cope with the technical aspects such as drug administration and dosage, fumigation, specifications and other new technology.

N. A. Jatto (2012) said that majority of the poultry farmers had tertiary education meaning that they are highly educated. It is expected that the level of education will contribute significantly to decision making of a farmer.

S.J. Ibitoye *et al*. (2013) revealed that only one per cent of the poultry farmers had no formal education. About 12 per cent of them had primary education, while about 70 per cent others had secondary school certificate. The remaining 17 per cent had one form of tertiary education or other.

D. Babalola (2014) found that majority of the respondents (64%) had tertiary education which shows that there is high literacy level among the farmers in the study area.

Esiobu *et al*. (2014) reveals that majority (65.00%) of the poultry egg farmers had secondary education, 18.33% had primary education, 10.00% had tertiary education, while 6.67% had non-formal education. The result implies that approximately 93.33% of the farmers had trainings in formal educational institutions which no doubt increases their literacy levels.

Ng'ang'a Julius Maina (2014) reported in his study that Majority 33.3 per cent of the respondents were of Diploma/Certificate level followed by secondary level at 31.75%.Graduate, primary level and postgraduate had 10%, 9% and 3% respectively.

O. A. Ojeleye *et al*. (2014) reported that about 6.5% of the farmers had no education. About 32.9%, 11.7% and 4.1% had primary, secondary and post secondary education respectively. Education propels farmers to adopt innovations and technologies that are vital for enhancing productivity.

From above review of literature, it could be concluded that majority of the respondents had either matriculation or more than that level of education.

2.1.3 Poultry farming experience

Nimbalkar (1998) found that majority (60.00 per cent) of the poultry entrepreneurs had experience between 5 to 11 years in poultry farming.

Basavarajappa *et al.* (1999) studied “Socio-economic profile of the poultry farmers of shimoga district of Karnataka” found that more than half (57.10 per cent) of the poultry farmers had experience between 1 to 4.5 years in poultry farming.

Vaghela (2002) stated that more than two-third (63.42 per cent) of the respondents were having experience of 2.1 to 5 years, whereas 26.82 per cent and 9.36 per cent had experience of more than 5 years and upto 2 years of experience, respectively.

Thorat (2005) pointed out that half of the respondents (50.91 per cent) were having experience of 5.1 to 10 years followed by 21.82 per cent and 17.27 per cent of the respondent who had up to 5 years and 10.1 to 15 years of poultry farming experience, respectively. Only 10.00 per cent of poultry entrepreneurs were having experience above 15 years.

Olagunju F. I. *et al*. (2011) stated that About 68.00 per cent of the poultry farm operators had up to 10-year poultry keeping experience while the average period of poultry keeping experience was 8 years.

Oyebanjo Olumayowa *et al*. (2011) reveals that 86.1% of the poultry farmers were in operation less than 10 years ago while 13.9% had between 10-25 years of experience. The low level of experience in poultry production might be due to high rate of withdrawal from poultry business in the past years.

G. J. Botlhoko *et al*. (2013) found that majority of respondents were having farming experience of less than five years (50.4%). 35% of participants had 6-10 years experience in farming, 7% of them had 11-15 years and only 7.4% had experience above 15 years in farming.

S.J. Ibitoye *et al*. (2013) revealed in their study that 52 per cent respondents had been in poultry farming business for more than 10 years, while 14 per cent had less than 5 years of experience.

Babalola D. Akinola (2014) stated that approximately 53 percent of the farmers have been in business for between five and ten years which is relatively long enough for them to have gained mastery of the enterprise having passed through more than five production cycles. In corroboration with good literacy level, farmers experience in farming is expected to increase quality and quantity of output by reducing bird and egg losses and increase the use of technology.

Esiobu *et al*. (2014) reveals that greater proportion (63.33%) of the farmers had less than 20 years of farming experience, 15.00% of the farmers had 21 to 30 years of farming experience, 13.33% of the farmers had 41 years of farming experience and above, while only 8.33% of the farmers constitute those with 31 to 40 years of farming experience in poultry egg production in the study area. The mean farming experience was 16.13 years.

Thus, it could be said that majority of the respondents had either up to five years or more than five years poultry farming experience.

2.1.4 Training received in poultry entrepreneurs

Bhairamker *et al*. (1997) reported that less than one-third (30.43 per cent) of the respondents had not received training, while remaining (69.57 per cent) respondents were trained.

Trivedi (2000) concluded that majority (94.44 per cent) of the respondents were untrained, whereas only 5.56 per cent of the respondents were trained. Patel (2007) also reported same results.

Verma and Singh (2000) observed that majority (82.85 per cent) of the respondents had received training, while 17.15 per cent of the respondents were untrained.

Thorat (2005) revealed that 71.82 per cent of the respondents did not received any type of training, while 28.18 per cent of respondent were trained.

S.J.Ibitoye *et al*. (2013) reported in his study that extension training is positively related to farm income. This implies that an increase in the extension training will translate into increase in income from poultry production.

From the above review, it could be inferred that majority of the respondents had high participation in training programme.

2.1.5 Caste/Community

Saiyed (1986) conducted a study in Kheda district and revealed that maximum number of the respondents (83.33 %) were from higher caste (Patel, Parsi *etc*.), followed by 15.00 per cent in intermediate castes (Mahida,Gohel,Rajput) and 1.67 per cent were from lower caste (SC and others) .He revealed that caste had non-significant relationship with the overall adoption of selected improved poultry farming practices.

Sidhu *et al*. (1997) found that more than half (56.66 per cent) of the farmers were from higher caste followed by 32.53 per cent who were from intermediate caste group and 10.81 per cent from lower caste.

Singh and Nande (2002) observed that majority (66.00 per cent) of the respondents were from schedule tribes and other backward castes.

Khalache *et al.* (2003) found that majority (70.66 per cent) of the poultry farmers belonged to higher caste followed by lower caste (26.67 per cent) and intermediate caste (2.67 per cent).

Parte (2003) reported that half of the respondents (50.83 per cent) were from higher caste group, while 46.67 per cent of the respondents were from intermediate caste and only 2.50 per cent were from other caste.

Thorat (2005) observed that majority of the poultry entrepreneurs (84.55 per cent) fall in higher caste group, whereas 10.00 per cent were from intermediate caste group and 5.45 per cent were from lower caste.

Trend emerged from reviewed studies that majority of the respondents were from higher caste.

2.1.6 Organizational participation

Bariya (1997) revealed that great majority (93.34 per cent) of the milk producers had membership in only one organization.

Nimbalkar (1998) found that half (50.67 per cent) of poultry entrepreneurs had medium organizational participation.

Patel (1999) stated that more than two-third (67.14 per cent) poultry farmers were having membership in more than one organization, whereas (11.43 per cent) of respondents were holding position in organization.

N. A. Jatto (2012) found that the majority of the farmers had been participating in cooperatives society for over 6 to 10 years. The implication of this result was that majority of the farmers had access to credit facilities from among the

cooperative society they belong to enhance their production and productivity in terms of sourcing for credit or other sundries to boost their productivity. It also helps them to share information and project a collective demand.

Babalola D. Akinola (2014) reported in his study that 54 percent of the farmers participated and had been benefited from cooperative membership, 46 per cent still do not participate.

Esiobu *et al*. (2014) revealed that majority (68.33%) of the poultry egg farmers in the study area were members of one form of cooperative society or the other, while 31.67% do not belong to cooperative society. The implication of this result was that majority of the farmers had access to credit facilities through the cooperative society to which they belong, to enhance their production and boost their resource, use efficiency, productivity and income effectively.

Femi Oluwatusin *et al*. (2014) reported about the involvement and loyalty of farmers to cooperative societies in which 88.3 percent were members and 11.7 were non-members.

2.1.7 Mass media exposure

Siddhartha (2001) found that majority (58.75 per cent) of the poultry entrepreneurs had medium level of exposure to mass media, whereas 23.75 per cent and 17.50 per cent of the respondents had low and high level of exposure to mass media**,** respectively.

Vaghela (2002) revealed that great majority (75.60 per cent) of the respondents had medium level of mass media exposure followed by 13.42 per cent with low and 10.98 per cent with high level of mass media exposure.

Chauhan *et al*. (2003) in his study reported that nearly half (58.00 per cent) of the poultry entrepreneur had medium level of mass media exposure, whereas 23.75 per cent with high and 17.50 per cent with low level of mass media exposure, respectively. Khalache *et al.* (2003) also reported similar results.

Patel (2005) reported that slightly less than two-third (64.00 per cent) of the respondents had medium level of exposure to mass media, whereas 20.00 per cent and 16.00 per cent of the respondents had low and high level of exposure to mass media, respectively.

Thorat (2005) pointed out that majority (76.36 per cent) of the poultry entrepreneurs had medium level of mass media exposure followed by 16.37 per cent with high and 7.27 per cent with low level of mass media exposure.

G. J. Botlhoko *et al*. (2013) reported in his study that most prominent information source to the respondents is radio, followed by television (10.0%) and newspaper (7.5%).

The reviewed literature indicated that majority of the respondents had medium level of exposure to mass media.

2.1.8 Contact with Extension Agency

Sidhu *et al*. (1997) concluded that more than half (53.34 per cent) of the respondents had medium extension contact, whereas 27.18 per cent and 19.48 per cent of the respondents had high and low level of contact with extension agency, respectively.

Temkar (2000) revealed that more than one third (35.00 per cent) of the respondents were found to have high level of extension contact, while 33.33 per cent with low and 31.67 per cent were with medium level of extension contact.

Thorat (2005) found that majority (69.10 per cent) of the respondents were having medium extension contact followed by equal number (15.45 percent) of the respondents had low and high extension contact.

N. A. Jatto (2012) revealed that majority of the farmers did not have any form of extension contact. The implication of the findings showed that extension contact which is a channel through which agricultural innovations and information are passed to farmers for improvement in their standard of living, production and productivity were missing. This can bring about low productivity due to lack of innovative information.

Esiobu (2014) reveals in his study that majority (61.67%) of the poultry egg farmers received 1-2 extension visits per month while 38.33% receives 3 and above of extension visits per month. The mean visit per month was 2 times. This implies that the farmers in the study area were poorly visited by extension agents to ascertain their farming problem and know where they need assistance.

Above reviewed studies indicated that majority of the respondents had medium to high contact with extension agency.

2.1.9 Occupation

Patel (1996) reported that more than half (53.75 per cent) of the respondents were having farming occupation with poultry.

Basavarajappa *et al*. (1999) observed that majority (80.00 per cent) of the poultry farmers were agriculturists, while 20.00 per cent had poultry as main occupation.

Patel (1999) observed that majority (70.00 per cent) of the respondents were having poultry and farming occupation jointly.

Oyebanjo Olumayowa *et al*. (2011) revealed that 63.9% of the farmers were engaged in poultry production only while 36.1% combined poultry production with other jobs.

N. A. Jatto (2012) observed that majority of the farmers are civil servants. This indicates that poultry farming is a part time job in the study area and that most farmers do not depend on the business as the sole mean of livelihood. This may be due to the fact that farmers usually want to add to their farm earnings.

2.1.10 Size of the poultry farm

Patel (1996) reported that nearly half (48.75 per cent) of the poultry farmers possessed medium size of the poultry farm, whereas 31.25 per cent and 20.00 per cent of the respondents had small and large size of poultry farm, respectively.

Bhattu *et al*. (1998) revealed that owner of small size of poultry farm were 56 .00 per cent, medium size poultry farm were 37.33 per cent and large size of poultry farms were 6.67 per cent.

Basavarajappa *et al.* (1999) observed that most of the farmers (94.30 per cent) had broiler farm, of which majority (54.3 per cent) were medium and (34.30 per cent) were small farmers.

Chauhan *et al*. (2003) reported that nearly three-fifth (58.75 per cent) of the poultry entrepreneurs had medium size of the poultry farm, whereas 30.00 per cent and 11.25 per cent of the respondents had large and small size of poultry farm, respectively.

Thorat (2005) revealed that more than three-fifth (77.27 per cent) of the poultry entrepreneurs had size of the poultry farm upto 15,000 birds followed by 10.91 per cent and 7.27 percent of the poultry entrepreneurs had size of the poultry farm in between 15,001 to 30,000 birds and above 45,000 birds, respectively. Small proportion (4.55 per cent) of the respondents had size of the poultry farm in between 30,001 to 45,000 birds.

Oyebanjo Olumayowa *et al*. (2011) revealed that 77.78% of the farmers rear less than 5,000 birds while 22.22% had more than 5000 birds on their farm.

S.J.Ibitoye *et al*. (2013) reported in his study that 18.50 per cent respondent kept less than 100 birds. The majority of the poultry contact farmers kept between 100 and 500 birds in their poultry house.

Esiobu (2014) reveals that majority (63.33%) of the poultry egg farmers in the study area had a farm size between the range of 401-500 birds, 13.33% had 501 birds and above, 11.67% had between 201-300 birds, while 6.67% and 5.00% had a farm size of between 301-400 birds and less than 200 respectively. The mean number of birds kept was 488 birds. This implies that poultry egg farmers in the study area were mainly smallholder farmers operating on less than or equal to 500

birds. This could be as a result of poor technical known-how, fear of risk and uncertainty, tenure system predominant in the area or increasing human population.

From the above reviewed literature, it could be concluded that majority of the respondents had medium size of the poultry farm.

2.1.11 Annual income

Vaghela (2002) found that majority (79.29 per cent) of the respondents had medium level of annual income followed by 13.41 per cent and 7.30 per cent that had high and low annual income, respectively.

Vaidya (2004) reported that 40.67 per cent of the respondents were found in medium annual income group i.e. Rs.50, 000 to Rs.1, 00,000, whereas 30.66 per cent of them were in low and 28.67 per cent were in high annual income group.

Thorat (2005) inferred that more than half (53.64 per cent) of the poultry entrepreneurs had annual income upto Rs. 1 lakh, whereas 20.91 per cent and 16.36 per cent of the respondents had annual income in between 1.51 lakh to 3.0 lakh and 3.1 lakh to 4.5 lakh, respectively. Only 9.09 per cent of the respondents had annual income above 4.5 lakh.

Vasava (2005) observed that 60.00 per cent and 40.00 per cent of the respondents had annual income up to Rs. 50,000/- and between Rs. 50,001 to 1, 00,000/-, respectively.

Patel (2007) pointed out that 46.80 per cent of the respondents belonged to medium level of annual income followed by low and high with 33.60 per cent and 19.60 per cent, respectively.

S.J.Ibitoye *et al*. (2013) reported that about 18 per cent had less than N 100,000 as annual farm income from poultry production. About 46 per cent had farm income of between N 100,000 and N 200,000, while 35 per cent had between N 200,001 and N 300,000 as income from poultry farming. The remaining one per cent had above N 300,000 as farm income.

Babalola D. Akinola (2014) reported in his study that most of the farmers (75%) earned above N100, 000 (approx. $ 625 and 0.32133 INR) monthly and a good number of them (53%) have access to credit facility.

Esiobu (2014) reveals that majority (63.33%) of the poultry egg farmers in the study area have an average annual farm income between N 61,000 – N 80,000, 18.33% have an between N 21,000- N 40,000, 10.00% have between of N

41,000- N 60,000, 5.00% have less than N 20,000 while 3.33% have between N 81,000 and above. The mean annual farm income was N 77,300.00 which is less than N 5,000 per month in spite of large families which they supported.

Trend emerged from reviewed studies that majority of the farmers had medium level of annual income.

2.1.12 Scientific orientation

Temkar (2000) reported that 48.34 per cent of the respondents had medium level of scientific orientation, whereas 26.66 per cent had low level of scientific orientation and 25.00 per cent had high level of scientific orientation.

Chauhan *et al*. (2003) found that 51.25 per cent of the poultry entrepreneurs had medium level of scientific orientation followed by 25.00 per cent and 23.75 per cent of the respondents that were having low and high scientific orientation, respectively.

Patel (2005) found that slightly more than half (51.10 per cent) of the respondents had medium level of scientific orientation, whereas 27.50 per cent had low level of scientific orientation and 21.40 per cent had high level of scientific orientation.

Thorat (2005) reported that great majority (72.73 per cent) of the respondents were found with medium scientific orientation followed by high (16.36 per cent) and low (10.91 per cent) level of scientific orientation.

Patel (2007) observed that slightly more than half of the respondents (51.60 per cent) had medium scientific orientation, while 32.80 per cent of the respondents had high scientific orientation and 15.60 per cent had low scientific orientation.

The literature reviewed above indicated that majority of the respondents had medium level of scientific orientation.

2.1.13 Risk orientation

Manker *et al*. (2000) concluded that great majority (80.00 per cent) of the respondents had medium level of risk orientation, whereas 13.33 per cent and 6.67 per cent of the respondents had high and low level of risk orientation, respectively. Thorat (2005) also reported similar results.

Chauhan *et al*. (2003) concluded that less than half (47.00 per cent) of the poultry entrepreneurs had medium level of risk orientation, while 23.00 per cent of the respondents had low and 30.00 per cent of the respondents had high level of risk orientation.

Patel (2005) reported that majority (70.00 per cent) of the respondents were found to have medium risk orientation followed by high and low risk orientation with 16.00 per cent and 14.00 per cent, respectively.

From the above studies, it could be concluded that majority of the respondents possessed medium level of risk orientation.

2.2 LEVEL OF ADOPTION OF POULTRY MANAGEMENT PRACTICES OF THE POULTRY ENTREPRENEURS

Patel (1999) found that nearly half of the poultry farmers (44.25 per cent) had medium level of adoption followed by 40.00 and 15.71 per cent of the respondents who had high and low level of adoption of poultry management practices, respectively.

Chauhan *et al.* (2003) reported that majority (66.25 per cent) of the poultry entrepreneurs had medium to high level of adoption of modern practices of the poultry farming.

DEPENDENT VARIABLE

2.3 LEVEL OF KNOWLDEGE OF POULTRY ENTREPRENEURS

Patel (1996) reported the nearly half of the poultry entrepreneurs (47.14 per cent) were having high level knowledge of poultry management practices.

Amudha and Veerabhadraiah (2000) stated that majority (83.00 per cent) of the women were found to be possessed medium level of knowledge and correct knowledge about simple practices in poultry farming. They lacked sufficient knowledge about simple practices in poultry farming, disease control, deworming and vaccination schedule.

2.4 RELATIONSHIP BETWEEN THE CHARACTERISTICS OF THE RESPONDENTS AND DEPENDENT VARIABLE

2.4.1 Age

Patel et al. (2002) reported that age of the respondents had negative and non significant correlation with participation in indigenous resource management activities.

Chauhan (2003) reported that age of the respondents was not significantly associated with their knowledge level of extension management ability.

Patel (2007) found significant but negative relationship between age of respondents and their knowledge level.

2.4.2 Education

Nimje *et al.* (1992) observed positive and significant relationship between education of the poultry farmers and their management.

Nimbalkar (1998) reported that there was positive and highly significant correlation between education of the poultry entrepreneurs and management of poultry birds.

Patel (2005) found that there was significant correlation between education of the respondents and management efficiency.

2.4.3 Poultry farming experience

Nimje et al. (1992) concluded that poultry farming experience of the poultry farmers was observed positively significant with their management.

Nimbalkar (1998) reported that there was positive and highly significant correlation between experience of poultry farming and management aspects.

Patel *et al. (*2003) concluded that experience had positive and significant relationship with their knowledge.

Patel (2005) reported that farming experience of the respondents was significantly associated with their management efficiency.

2.4.4 Training

Nimje *et al*. (1992) reported that training received in poultry keeping of the poultry farmers had non-significant relationship with their knowledge.

Karkar *et al*. (2003) observed that there was a positive and highly significant association between training and their knowledge level.

Patel (2005) observed that there was a positive and highly significant association between participation in training programme and knowledge of the respondents.

2.4.5 Caste/ Community

Singh *et al.* (1999) found that caste had non-significant relationship with the knowledge of the farmers about dairy farming technologies.

Temkar (2000) stated that caste was non-significantly related with the knowledge of the respondents regarding A.I.

Anujkumar *et al*. (2002) reported that caste had positive and non-significant correlation with knowledge level.

2.4.6 Organizational participation

Singh *et al.* (2001) observed significant relationship between knowledge level of improved agriculture and household technologies and their organizational participation.

Sarvanan *et al.* (2003) found significant relationship between organizational participation and knowledge levels of farmers on Indian agriculture under WTO.

2.4.7 Exposure to mass media

Singh *et al.* (2001) found that mass media exposure had significant relationship with the knowledge of the respondents.

Patel (2005) found that mass media exposure had significant relationship with the management efficiency of the respondents.

Thorat (2005) pointed out that majority (76.36 per cent) of the poultry entrepreneurs had medium level of mass media exposure followed by 16.37 per cent with high and 7.27 per cent with low level of mass media exposure.

2.4.8 Contact with extension agency

Patel (2005) reported that extension contact of the respondents was significantly associated with knowledge level.

2.4.9 Occupation

Sai (2002) found that occupation had negative and non-significant relationship with knowledge level of the respondents.

Manikpuri (2004) reported that occupation was non-significantly associated with the knowledge level of the respondents.

2.4.10 Size of the poultry farm

Temkar (2000) stated that size of the land holding was non- significantly associated with knowledge of the respondents.

2.4.11 Annual income

Nimje *et al.* (1992) revealed that annual income of the poultry farmers had non-significant relationship with their knowledge level.

Thakkar *et al.* (2003) pointed out that annual income of the respondents was found positively and significantly correlated with knowledge level of the respondents.

Joshi (2004) revealed that annual income was significantly correlated with level of knowledge of the respondents.

2.4.12 Scientific orientation

Awasthi *et al.* (2000) observed significant relationship between scientific orientation and knowledge level about improved dairy practices.

Manikpuri (2004) reported that scientific orientation had no significant relationship with the knowledge of the respondents.

Patel (2005) reported that scientific orientation had positive and significant relationship with knowledge level of the respondents.

2.4.13 Risk orientation

Nimbalkar (1998) reported that there was positive and highly significant correlation between risk orientations of the poultry entrepreneurs their knowledge level.

Temkar (2000) found that risk orientation had positively significant relationship with the knowledge of the respondents.

Manikpuri (2004) reported that risk orientation had no significant relationship with the knowledge of the respondents.

2.4.14 Extent of adoption of poultry managemental practices

Tripathi *et al.* (2003) reported that level of knowledge was positively and significantly correlated with adoption of goat rearing innovation.

Joshi (2004) revealed that knowledge level was highly significant with extent of adoption of modern practices of cotton cultivation.

2.5 Constraints faced by the poultry entrepreneurs.

Constraints play an obstructive role in adoption process of poultry production technology, just as a weed in flow of water in an irrigation channel. Therefore, for better results of extension approach, it is very essential to minimize the constraints in adoption process. Findings of various investigators regarding constraints faced by the poultry owners are presented below.

Nimbalkar (1998) revealed that the majority of the constraints faced by the poultry entrepreneurs in adoption of poultry farming practices were costly birds (94.66 per cent), low egg price during summer (92.00 per cent), costly construction of poultry shed (84.00 per cent), high price of feed (81.33 per cent), low wholesale price of eggs (78.66 per cent) and high rate of interest on loans (74.66 per cent).

Amudha and Veerabhadraiah (2000) stated that poultry farm women were facing the problems of non-renumerative price of eggs (100.00 per cent), high cost of feed (98.00 per cent), disease problem (80.00 per cent), monotonous to work in the poultry farm (40.00 per cent), lack of training (36.00 per cent), lack of extension guidance (33.00 per cent), high mortality of chicks (29.00 per cent) and lack of support from the family members (26.00 per cent).

Mayekar et al. (2001) studied the constraints of poultry owners of north-Konkan region of Maharashtra state and reported that the major constraints faced by the poultry owners were fluctuation in demand (100.00 per cent), complex, lengthy and rigid procedure for getting loan (100.00 per cent), failure in getting timely information regarding frequent fluctuation in sale price (97.37 per cent), non-availability of loan when required (97.37 per cent), high cost of chicks (89.47 per cent), high cost of feed (86.84 per cent) and non-availability of proper storage facility for eggs and meat (78.95 per cent).

Patel et al. (2002) revealed that high cost of feed (98.57 per cent), high charges of the electricity (88.57 per cent), non-availability of the labours (87.14 per cent), risk and uncertainty (82.86 per cent) were the main constraints faced by the poultry entrepreneurs.

Khalache et al. (2003) found that majority of poultry owners facing the constraints were ‘non-availability’ of market for the poultry products (88.00 per cent), ‘non-availability’ of fair price for poultry product (80.00 per cent), exploitation by the middleman / traders / intermediaries (73.33 per cent) and lack of knowledge regarding scientific poultry management practices (72.00 per cent).

Thorat (2005) reported the constraints of the poultry entrepreneurs as low egg price during the summer (95.45 per cent), costly birds (92.72 per cent), high feed cost (86.36 per cent), high rate of interest on loan (80.91per cent), difficulty in getting loan (78.18 per cent), low wholesale price of eggs (76.36 per cent), high charge of electricity (74.54 per cent), risk and uncertainty (70.91per cent) in poultry enterprise.

2.6 Suggestion to overcome the constraints in adoption of poultry management practices

The suggestions of the poultry owners are very important in the sense that these suggestions may be useful in developing strategy for constraints solution. These views of various investigators in this respect are summarized as under:

Saiyad (1986) reported that regular electricity power should be supplied (96.67 per cent), long term credit facilities with more number of installment should be provided (93.33 per cent), and quick and timely finance should be provided to the poultry entrepreneurs as per their requirement from the bank (91.67 per cent) were the important suggestions given by the respondents to overcome constraints of poultry enterprise.

Patel (1999) reported that poultry feed should be available easily and at reasonable price (85.71 per cent) and electric charges should be low (81.27 per cent were the important suggestions given by poultry entrepreneurs to overcome constraints of poultry enterprise.

Khalache *et al.* (2003) reveled that majority of the backyard poultry owners suggested to impart knowledge about important poultry management practices (80.66 per cent), demonstrations, exposure visits, organizing the training were suggested by 64.00 per cent respondents, while 58.66 per cent respondents suggested that organization of small poultry entrepreneurs should be established.

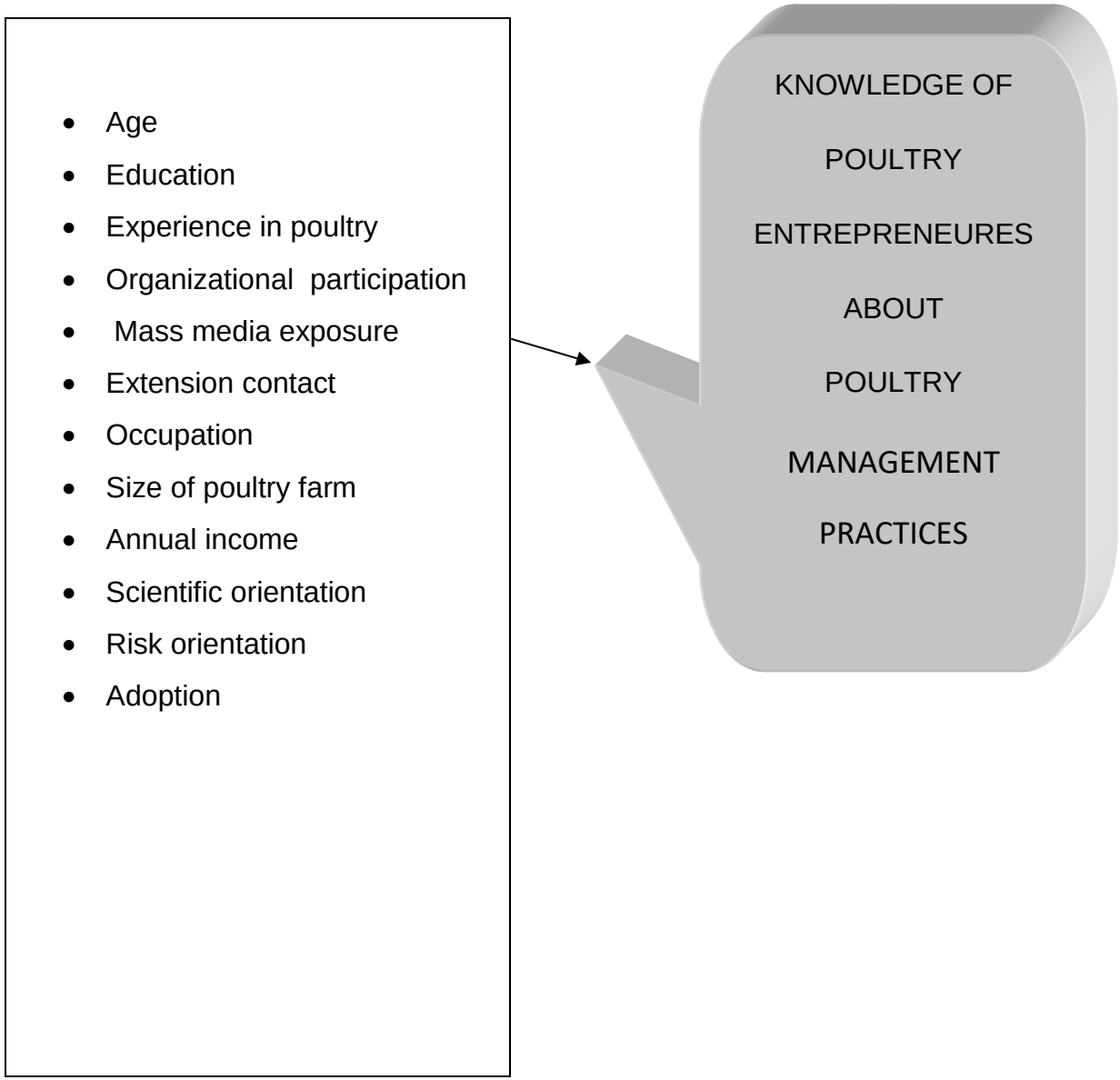
Thorat (2005) pointed out that majority (91.82 per cent) of the poultry farmers had suggested that the electricity charges should be kept low, whereas 86.36 per cent of the respondents suggested easily and timely availability of feed with reasonable price should be provided. Nearly less than three fourth (74.55 per cent) of the respondents suggested that long term credit facility should be provided, followed by 70.91 per cent and 61.12 per cent of the respondents who suggested that effective marketing facility should be made available for poultry entrepreneurs and egg price should be fixed through government agencies or association, respectively.

2.7 CONCEPTUAL FRAMEWORK OF THE STUDY.

Any systematic study should essentially be based on sound theoretical model. A researcher develops a model for the purpose of his study, since it helps in rational thinking about the research problem and represents the conceptualization of

the concepts used in the research study. Based on the discussion on foregoing reviews of the past researches, a conceptual theoretical model has been developed for the present study and depicted in Figure 1.

FIG. 1. THE CONCEPTUAL MODEL OF THE STUDY RELATIONSHIP BETWEEN DEPENDENT VARIABLES OF THE POULTRY ENTREPRENEURS AND THEIR CHARACTERISTICS


Age
Education
Experience in poultry
Organizational participation
Mass media exposure
Extension contact
Occupation
Size of poultry farm
Annual income
Scientific orientation
Risk orientation
Adoption
KNOWLEDGE OF
POULTRY
ENTREPRENEURES
ABOUT
POULTRY
MANAGEMENT
PRACTICES

CHAPTER - III

RESEARCH METHODOLOGY

This chapter deals with the description of procedure followed for carrying out the investigation. It contains the research design, the tools and techniques for measuring the dependent and independent variables including interview schedule employed for data collection. The selection of the respondents and the techniques for investigation as well as devices used for analysis are also explained in this chapter. Hence, the chapter takes the care of scientific procedure adopted and meaningful inferences. The methodology is described under the following sub-heads.

3.1 Plan of the study

3.2 Area of the study

3.3 Research design

3.4 Sampling procedure

3.5 Development of interview schedule

3.6 Pre-testing of interview schedule

3.7 Collection of the data

3.8 Selection of the variables

3.9 Measurement of the variables

3.10 Statistical framework for analysis of the data

3.1 PLAN OF THE STUDY

There are large number of projects for agriculture and rural development but there are no sureties of filling the number of empty stomachs of people of our country in year to come. Using other areas of food production can solve this problem.

Poultry farming is one of the most fertile areas to ease out the enormous amount of demographic pressure on agriculture. To a considerable extent the production is positively affected by adoption of improved poultry management practices by entrepreneur. Knowledge as body of understood information possessed by an individual is one of the important

component of adoption behavior. If a farmer possesses the knowledge about details of technology of poultry farming, it is expected that he will put into practices as and when situation arises.

The knowledge might have some association with certain personal, social, communicational and psychological characteristics of the entrepreneurs. If this association could be ascertained, it may be possible to draw out certain inferences about knowledge of poultry entrepreneur.

Ajmer district have highest poultry population in Rajasthan and is most developed district in Rajasthan in regards of poultry entrepreneurship. Poultry farming in Jhunjhunu district is limited to Khethri, Chirawa and Nawalgarh tehsils only. Since during last five-years, number of poultry farm are not increasing. Instead layer farms are being converted to broiler farm for early return. Poultry entrepreneurship in Jhunjhunu district is showing decline trend, so present study has been planned to find out the constraints in development of poultry entrepreneur in Jhunjhunu and Ajmer district.

3.2 AREA OF THE STUDY

For any social research involving farmers as a unit of the study, a two way direct communication between the researcher and the respondents is a must to build up a good rapport, ensure free and frank dialogue and to get satisfactory response. Jhunjhunu and Ajmer districts are selected for the study as these districts have highest poultry population in Rajasthan. These districts are moderately advanced in agriculture and animal husbandry practices.

With this basic consideration in view, Eastern Rajasthan from where the researcher hails was purposively selected for the study so that familiarity with the area, people and language would be helpful to researcher in collecting information required for study. Present study is planned to find out the constraints in development of poultry entrepreneur in Rajasthan.

Jhunjhunu district is situated in the North-eastern part and Ajmer district is situated in the central part of the state of Rajasthan. Poultry population in Rajasthan is 49,93,620. Jhunjhunu district accounts for 4,49,248 poultry birds among which 2,95,150 are available at commercial farms and Ajmer district accounts for 15,86,735 poultry birds among which 14,70,497 are available at commercial farms (18^{th} Livestock census, Dept. of Animal husbandry, Rajasthan).

3.3 RESEARCH DESIGN

Ex-post-facto research design was used in present investigation. Kerlinger (1976) defined ex-post-facto design as an systematic empirical enquiry in which the independent variables have not been directly manipulated because they have already occurred or because they are inherently not manipulated. Further he stated that ex- post- facto studies can be devised to deduce theories, identify behavior phenomena and explore condition under which a phenomenon occurs. Keeping in view the adaptability of the proposed design with respect to the type of variable under consideration, size of respondents and phenomena to be studied the ex-post-facto design was selected as an appropriate research design.

3.4 SAMPLING PROCEDURE

(A) Selection of the tehsil

The study was conducted in Ajmer and Jhunjhunu districts of Rajasthan. The Ajmer district comprised of nine tehsils, out of which four tehsils were selected. The selected tehsils were Ajmer, Kishangarh, Sarwar and Beawar. The Jhunjhunu district comprised of eight tehsils, out of which three tehsils were selected. The selected tehsils were Khetri, Chirawa and Nawalgarh. According to the information available total organized poultry farms in Ajmer and Jhunjhunu districts are 173 and 88 respectively. Selection of tehsils in Ajmer and Jhunjhunu districts was done on following ground.

1. These tehsils have maximum number of poultry owners.
2. The investigator could be able to cover these areas within the time limit.

For selection of tehsils information was collected from Dy. Director of Animal husbandry, district Jhunjhunu and office of poultry training centre Ajmer.

(B) Selection of the respondents

Out of total 173 poultry entrepreneurs in the Ajmer district. Only 100 poultry entrepreneurs were selected as respondents for the study and out of total 88 poultry entrepreneurs in the Jhunjhunu district only 75 poultry entrepreneurs were selected as respondents for the study.

Table 1: Tehsils wise distribution of respondents interviewed.

Sr.No	**Name of tehsils** (District: Ajmer)	**No.Of Farms**	**Sr.No**	**Name of tehsils** (District: Jhunjhunu)	**No.Of Farms**
1.	Ajmer	25	1.	Khetri	25
2.	Kishangarh	25	2.	Chirawa	25
3.	Sarwar	25	3.	Nawalgarh	25
4.	Beawar	25			
	Total (A)	100		Total (B)	75
Total (A+ B)=175					

3.5 DEVELOPMENT OF INTERVIEW SCHEDULE

The data were collected through the personal interview. Personal interview schedule has been considered to be the most important tool through which researcher can get most authentic first hand information. The interview schedule was prepared by keeping in view the objectives of the study and was common for all the respondents. In formulating the questions and statements of the schedule, the investigator sought the opinion and guidance of the major advisor, used available literature and made personal consultations with staff of the department of animal husbandry, Jhunjhunu and Poultry Training Centre-Ajmer District.

The data was collected through the personal interview. The interview schedule was divided into seven major parts.

- Personal, social, economical, communicational and psychological characteristics of poultry entrepreneurs.
- Knowledge level of the poultry entrepreneurs about poultry management practices.
- Adoption level of the poultry entrepreneurs of poultry management practices.
- The entrepreneurial behavior of poultry owners.
- The relationship between the profile of the poultry entrepreneurs and their knowledge level about poultry management practices.
- Problems faced by the poultry entrepreneurs in management of poultry enterprises.
- Suggestions to the poultry entrepreneurs to overcome constraints of poultry management practices.

3.6 PRETESTING OF THE SHEDULE

In order to test the administrabilty of each question and statement and to remove ambiguity in measuring instrument, pre-testing was carried out with 30 poultry entrepreneurs from both Ajmer and Jhunjhunu districts who were not included in final sample. The respondents were informed about the importance and purpose of the study. On the basis of information provided and experience gained by investigator, ambiguity of words and language was corrected and necessary modifications were made after the consultation with the major advisor in final format of interview schedule.

3.7 COLLECTION OF THE DATA

The data were collected in the month of June to November, 2014 by personal interview method from the entire 175 poultry owners by using well structured, pre-tested, Hindi version interview schedule. Before conducting the interview, after having selected the respondents, the researcher paid repeated visits to the villages under investigation and developed a good rapport with the selected respondents to gain their confidence. The researcher's personal professional qualifications and experience greatly facilitated in rapport building. Before administering the schedule, the objectives of the study were explicitly explained to the poultry owner. The questions from the schedule were presented to them in their own dialect, ensuring that they had perceived the questions correctly so as to avoid any interpretational variation of the questions put

before the respondents. The answers obtained were recorded and only one respondent was interviewed at a time. During the interview, care was taken to keep alive the interest of the respondents. It took nearly 2 to 3 hours to administer a schedule for each respondent depending on the efficiency of the respondent to reply the questions posed to them. At occasions, when the respondent found it difficult to respond to a particular question, it was postponed till the end of interview. Finally, closed the interview with a vote of thanks to the respondents.

3.8 SELECTION OF THE VARIABLES

The selection of variables for the study was done on the basis of extensive review of literature of the past studies and also from the suggestions received after rigorous discussion with the major advisor, experts and member of the advisory committee. Only those variables, which were found most relevant to the present investigation, were finally selected for the study.

A detailed description of the dependent and independent variables selected for this study along with their empirical measurement has been presented in Table 2 .

Table 2 - Selection of the variables and their measurement

Sr. No.	**Name of Variable**	**Measurement Technique**

(A) INDEPENDENT VARIABLE		
1.	**Age**	Chronological age of the respondent.
2.	**Education**	Structured schedule is developed
3.	**Poultry farming experience**	Experience in farming in years
4.	**Training in poultry**	Scoring procedure is used.
5.	**Caste/Community**	Socio-economic status scale developed by Pareek and Trivedi (1963) is used
6.	**Organizational participation**	Socio-economic status scale developed by Pareek and Trivedi (1963) is used
7.	**Mass media exposure**	Scale developed by Tripathi, (1994) is used.
8.	**Extension contact**	Structured schedule is developed
9.	**Occupation**	Structured schedule is developed
10.	**Size of poultry farm**	Structured schedule is developed
11.	**Annual income**	Actual net income in Rupees.
12.	**Scientific Orientation**	Scale by Supe (1969) is used.
13.	**Risk orientation**	Scale by Supe (1969) is used.
14	**Adoption level of poultry management practices**	Scale by Sengupta(1967) is used.

(B) DEPENDENT VARIABLE		
1.	**Knowledge of poultry management practices**	Structured schedule is developed.

3.9 MEASURMENT OF THE VARIABLES

Measurement of the independent variables

To describe the respondents to their personal, social, economic, communicational and psychological characteristics they were grouped into various categories on the basis of available data as under.

3.9.1 Age

The number of years completed by the respondents at the time of interview was considered as his age for this study. The age of respondents is categorized into three groups as under.

Sr. No	Category
1.	Young age group (Up to 30 years.)
2.	Middle age group (In between 31 to 50 years.)
3.	Old age group (Above 50 years.)

3.9.2 Education

It refers to the formal education obtained by the poultry owners in terms of their level of education. It was measured with the help of socio-economic status (SES) scale developed by Pareek and Trivedi (1963) with due modifications. One score was given to each formal level of education of the respondent.

The maximum scoring followed for each level of formal education was as under:

Sr. No.	Level of education	Score
1.	Illiterate	0
2.	Can Read and Write	1
3.	Up to 8^{th} Std.	8

4.	9^{th} to 10^{th} Std.	10
5.	Up to 12^{th} Std.	12
6.	College and above Education	15

3.9.3 POULTRY FARMING EXPERIENCE

It refers to involvement, connection and attachment of the poultry farmers in terms of number of years of experience from starting of poultry farming to the time of interview of respondents engaged in the poultry enterprise. The years as such, were considered as the poultry farming experience score for each respondent.

According to their experience in poultry farming the respondents were classified as given below.

Sr. No.	Category (Poultry Farming Experience)
1	1 to 5 years experience
2	5.1 to 10 years experience
3	10.1 to 15 years experience
4	Above 15 years experience

3.9.4 Caste/Community

The respondents were classified into six categories according to their caste/Community.

Sr. No.	Category

1	Hindu
2	Muslim
3	Sikh
4	Christian
5	Jains
6	Others

3.9.5 Organizational Participation.

Organizational participation in the present study was operationalized as the degree to which an individual is associated with different formal organization. It was measured by using scoring process developed by Pareek and Trivedi (1963) in his SES scale.

The score has been given below.

Sr. No.	**Organizational participation**	**Score**
1.	No membership in any organization	0

2.	Membership in one organization	1
3.	Membership in more than one organization	2
4.	Holding position in organization	3

3.9.6 Exposure to Mass media

This refers to the frequency of reading newspaper, magazine and other literature relating to the poultry farming as well as use of radio and television, also attending the agricultural exhibition, demonstration and personal visit by the respondents.

This variable was quantified by assigning following scoring pattern for each medium.

Sr. No.	Category	Score
1.	Regular using media by respondents	2
2.	Occasionally using media by respondents	1
3.	Never using media by respondents	0

3.9.7 Contact with Extension Agency

It refers to the contact made by the respondents with extension agency or extension worker locally or outside the village. It was measured considering the frequency of meeting of respondents with the Village Level Worker, Extension Officers, Subject Matter Specialist, Poultry Consultant, Poultry Training Center, Veterinary College, Farmers' Training Center, Non-government organizations etc. The scoring system followed was 5, 4, 3, 2, 1 and 0 for weekly, fortnightly, monthly, six-monthly, annual and never at all, respectively.

On the basis of mean and S.D. The respondents were grouped into three categories as under.

Sr. No	Category	Score
1.	Low contact	< Mean - S.D.
2.	Medium contact	Mean - S.D to Mean + S.D
3.	High contact	> Mean + S.D.

On the basis of mean (x) and standard deviation (S.D.), the respondents were grouped into three categories.

3.9.8 Occupation

The respondents were classified into four group according to their occupation as under.

Sr. No.	Category	Score

1.	Poultry only	1
2.	Poultry+ Farming	2
3.	Poultry+ Service	3
4	Poultry+ Farming+ Service	4

3.9.10 Size of the poultry farm

According to the size of the poultry farm, the respondents were grouped into four categories as given below.

Sr. No.	Size of poultry farm
1	Up to 3000 birds
2	3001 to 6000 birds
3	6001 to 9000 birds
4	Above 9,000 birds

3.9.11 Annual income

It refers to the total annual income earning by the respondent from all sources. The annual income in rupees as such was considered as the annual income score for each respondent.

The respondents were classified into four categories according to their annual income level as under.

Sr. No.	Category
1	Up to 1.5 lakh
2	1.51 lakh to 3 lakh
3	3.1 lakh to 4.5 lakh
4	Above 4.5 lakh income

3.9.12 Scientific orientation

It is characterized by a belief in science and scientific approach to solve the problems in poultry farming. In the present study scientific orientation is conceptualized as a degree to which a poultry owner is oriented to the use of improved poultry management practices in poultry enterprise.

This variable was quantified by using the scientific orientation scale developed by Supe (1969) with due modification. The scale consisted of five statements. The positive and negative statements were scored as under.

Statement	Strongly agree	Agree	Undecided	Disagree	Strongly disagree
Positive	5	4	3	2	1

Negative	1	2	3	4	5

Categories for the respondents were formed on the basis of mean and standard deviation.

Sr. No	Category	Score
1.	Low scientific orientation	< Mean - S.D.
2.	Medium scientific orientation	Mean - S.D to Mean + S.D
3.	High scientific orientation	> Mean + S.D.

3.9.13 Risk orientation

It refers to the degree to which an individual is oriented towards risk and uncertainty and has courage to face the problems in poultry farming. Supe (1969) developed a scale for measuring five orientations of farmers. The same scale was used in the present study with due modification. The scale consisted of five statements .The positive and negative statements were scored as under.

Statement	Strongly	Agree	Undecided	Disagree	Strongly disagree

	agree				
Positive	5	4	3	2	1
Negative	1	2	3	4	5

Categories for the respondents were formed on the basis of mean and standard deviation.

Sr. No	Category	Score
1.	Low risk orientation	< Mean - S.D.
2.	Medium risk orientation	Mean - S.D to Mean + S.D
3.	High risk orientation	> Mean + S.D.

3.9.14 Adoption level

Measurement of level of adoption of poultry management practices by the poultry entrepreneurs was measured with the help of an adoption formula given by Sengupta (1967)

$$\text{Adoption Quotient (A.Q)} = \frac{\text{No .of practices used}}{\text{No .of practices recommended}} \times 100$$

At the time of personal interview information was collected from each respondent about their adoption of practices. By using above formula adoption quotient was worked out for each respondent and was as such considered as adoption for individual respondents.

For quantifying the data each question/practice was given the score for correct answers. Letter on all respondents were grouped into three categories with the help of mean and standard deviation.

Sr. No	Category	Score
1.	Low adoption	< Mean - S.D.
2.	Medium adoption	Mean - S.D to Mean + S.D
3.	High adoption	> Mean + S.D.

3.9.15 Knowledge level of the poultry entrepreneurs.

Knowledge about recommended poultry production technology was measured with the help of teacher made knowledge test based on the scale developed by Jha and Singh (1970) and was administrated with slight modifications to suit the present study. The knowledge index was calculated with the help of following formula.

Knowledge Index (Ki) = $\frac{X1 + X2 + \ldots\ldots\ldots\ldots + Xn}{N} \times 100$

Where,

Ki =knowledge index

X1+X2+ ……+Xn = Total number of correct answers. i.e. total score

N = Total number of items in the test

The respondents were grouped into three categories with the help of mean and standard deviation.

Sr. No	Category	Score
1.	Low knowledge	< Mean - S.D.
2.	Medium knowledge	Mean $\pm$ S.D.
3.	High knowledge	> Mean + S.D.

3.9.16 Measurement of constraints faced by the poultry entrepreneurs

For measuring constrains in management practices of poultry enterprise a simple frequency system was applied. The respondents were asked to give the information about the constraints faced by them. There after the frequency of each constrains countered by the respondents were ascertained and the frequency was converted into percentage.

3.9.17 Suggestions to overcome the constraints

Considering the constraints faced by the poultry entrepreneurs and to overcome the same in poultry management practices, they were individually asked to give their valuable suggestion. There after the frequency of each suggestions countered by the respondents were ascertained and the frequency was converted into percentage.

STATISTICAL FRAMEWORK FOR ANALYSIS OF DATA

The data collected through interview schedule from respondents were processed and tabulated. The following statistical tools were used for the interpretation of data.

1. **Percentage :** The simple comparisons were made on the basis of percentage.

2. **Mean score:** This was obtained through total score divided by the number of respondents.

   Mean Score=Score received / n

3. Standard deviation: This was obtained by the square root of the average of the squared deviation from the mean. The following formula was used for calculation of standard deviation.

$$\text{S.D.} = \sqrt{\sum_{i=1}^{n} \frac{(xi - \overline{X})^2}{n - 1}}$$

Where, S.D. = Standard deviation.

Σ = Summation

Xi = individual score

$\overline{X}$ = mean of the score

n = total number of respondents

4. **Relationship between independent and dependent variables**:

To find out the relationship between independent and dependent variables the Pearson's Product Moment Method suggested by Chandel (1978) for computing correlation co-efficient was used.

The correlation coefficient gives two kinds of information, (i) an indication of the magnitude of the relationship and (ii) information about the direction (positive or negative). For computing Pearson Product Moment Method of correlation co-efficient, the following formula was used:

$$r = \frac{\Sigma xy - \frac{(\Sigma x \times \Sigma y)}{n}}{\sqrt{\{\Sigma x^2 - (\Sigma x)^2 / n\}\{\Sigma y^2 - (\Sigma y)^2 / n\}}}$$

Where, r = correlation coefficient between x and y

x = independent variable

y = dependent variable

n = number of observations

$\sum xy$ = Sum of product of the deviation of x and y from their mean

$\sum x^2$ = Sum of square of the deviation of x from their mean

$\sum y^2$ = Sum of square of the deviation of y from their mean

CHAPTER - IV

RESULTS AND DISCUSSION

This chapter deals with the findings and their interpretation which have emerged on the basis of statistical analysis of the data. An attempt has been made to highlight the findings in comprehensive and systematic manner on the basis of analytical view of research by discussing their various dimensions and supporting with relevant references, wherever, applicable.

The data were collected for present investigation from the poultry owners and they were classified, tabulated, analyzed and presented as per the specific objective of the study. Interpretation and discussion have also been made on the basis of results obtained.

The facts and findings have been grouped into the following heads:

4.1 Profile of the poultry entrepreneurs.

4.2 Extent of adoption of the poultry entrepreneurs about poultry management practices.

4.3 Knowledge level of the poultry entrepreneurs about poultry management practices.

4.4 Relationship between the profile of the poultry entrepreneurs and their level of knowledge about poultry management practices.

4.5 Constraints faced by the poultry entrepreneurs in poultry management.

4.6 Suggestion to overcome the constraints faced by the poultry entrepreneurs in poultry management.

4.7 Empirical model

4.1 Profile of the poultry entrepreneurs

4.1.1 Age

Age of the poultry owner plays a pivoted role in adoption of an innovation. Younger age farmers are more receptive to new ideas and practices. At the later stage, the farmers find it difficult to change from old age practices and they resist in adopting an innovation and indirectly affect the management efficiency of an individual. With this hypothecation, it was thought appropriate to study the age of the respondents. Data with respect to age are presented in Table - 3 and depicted in figure - 1 and figure - 2.

Table - 3 : Distribution of the respondents according to their age

n=175

Sr. No.	Category	Ajmer		Jhunjhunu	
		Number	Per cent	Number	Per cent
1	Young age (up to 30 years)	21	21	14	18.66
2	Middle age (31 to 50 years)	**50**	**50**	**45**	**60.00**

3	Old age (above 51 years)	29	29	16	21.33
	Total	100.00	100.00	75	100.00

The data presented in Table 3 revealed that majority (50 per cent and 60 per cent) of the poultry entrepreneurs belonged to middle age group followed by old age group (29 per cent and 21.33 per cent) and young age group (21 per cent and 18.66 per cent) in both Ajmer and Jhunjhunu districts respectively.

At a glance, data showed that majority of the poultry entrepreneurs (50 per cent and 60 per cent) in both Ajmer and Jhunjhunu districts were from middle age group. The possible reason for this might be that, they had better experience and enough maturity for taking decision for better profitable occupation. Secondly, the occupation might be taken up by the middle age group due to unemployment. Old ones were unable to do poultry farming and young ones are in need of white collar job.

This finding is in line with the findings reported by Chauhan and Patel (2003), Khalache *et al.* (2003), Patel (2005), Rai and Saharia (2004), Thorat (2005), A. Razzaq *et al.* (2011), Adebayo *et al.* (2012), Nath *et al.* (2012), Jatto *et al.* (2012), Ankuya *et al.* (2014) and Esiobu (2014)

Fig. 1. Distribution of the poultry entrepreneurs according to their age in Ajmer district

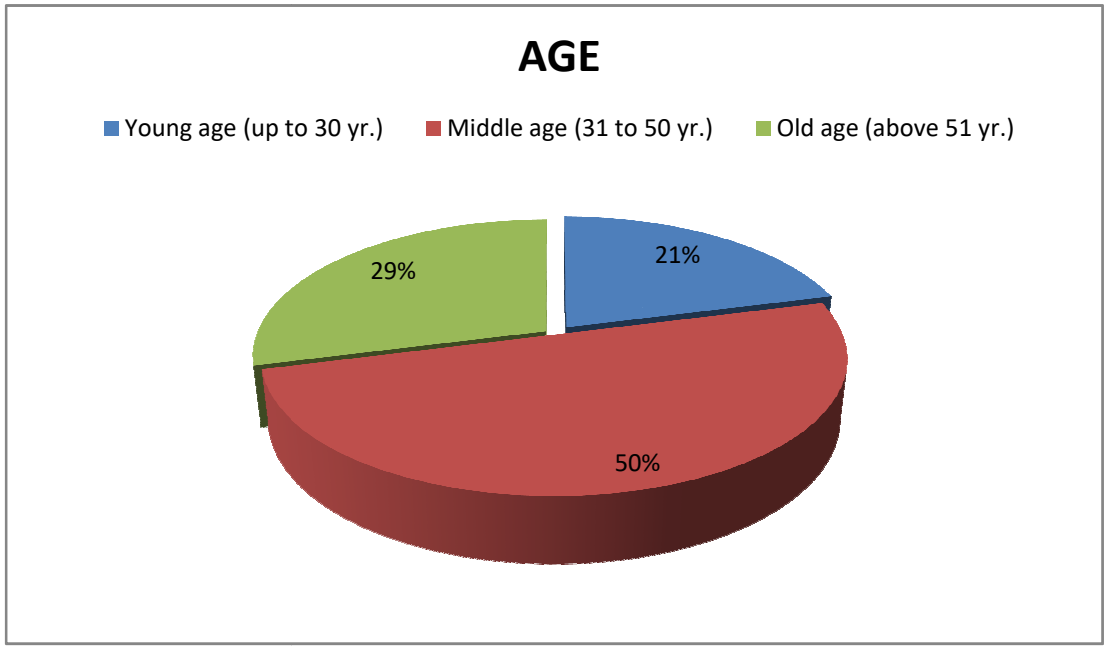
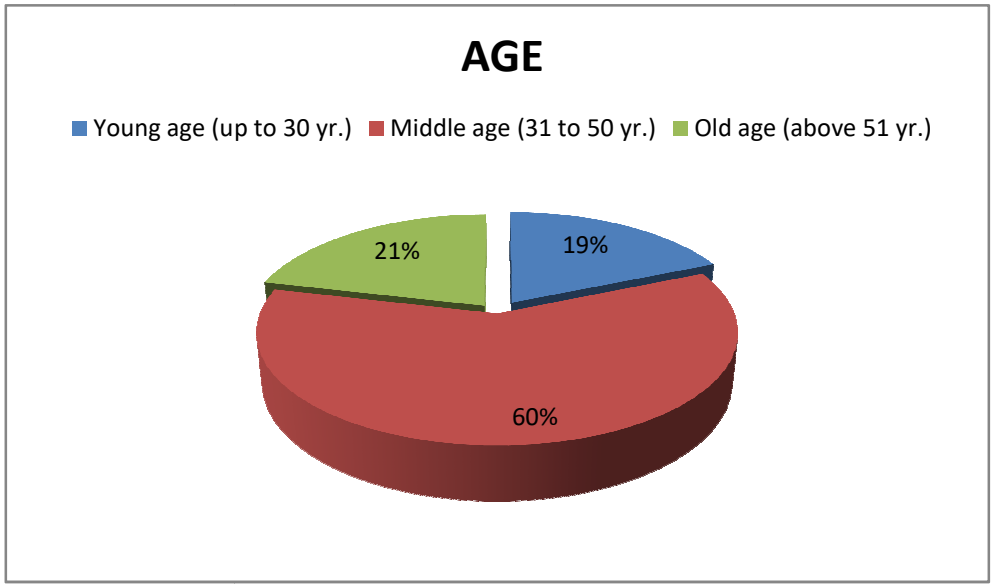


Fig. 2. Distribution of the poultry entrepreneurs according to their age in Jhunjhunu district



4.1.2 Education

The formal education of the respondents plays an important role in perception and performance of various roles. Logically, members with higher level of formal education are expected to have better participation in the society than those with lower level of formal education. Considering these aspects, the formal education of poultry owner was studied. The data in this respect are presented in Table - 4 and depicted in figure - 3 and figure - 4.

It is evident from the Table - 4 that in Ajmer district majority (64.00 per cent) of the poultry owners were educated up to 8th Std., whereas 12.00 per cent of them had 9th to 10th Std. of education and 14.00 per cent of them had completed higher secondary level of education. Only 10.00 per cent were educated up to college level and above.

In Jhunjhunu district, there were only 9.33 per cent of respondents who had education level below 9th stdandard . Majority (60.00 per cent) of poultry owners were having their education level upto 10th standard. 18.66 per cent and 12.00 per cent of respondents had their education level up to college or above and up to 12th standard, respectively.

Table - 4: Distribution of the respondents according to their level of education

n=175

Sr. No.	Level of education	Ajmer		Jhunjhunu	
		Number	**Per cent**	**Number**	**Per cent**
1	Illiterate	00	00	00	00
2	Can read and write	00	00	00	00
3	Up to 8th std.	**64**	**64**	07	9.33
4	9th to 10th std.	12	12	**45**	**60.00**
5	11th and 12th std.	14	14	09	12.00

6	College and above	10	10	14	18.66
	Total	100	100	75	100

Fig. 3. Distribution of the poultry entrepreneurs according to their level of education in Ajmer district

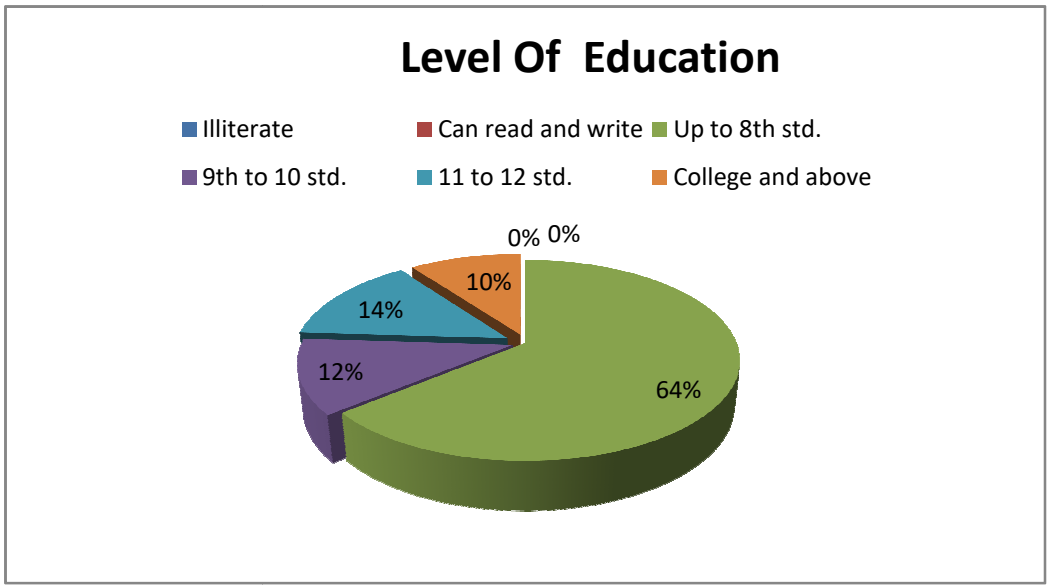
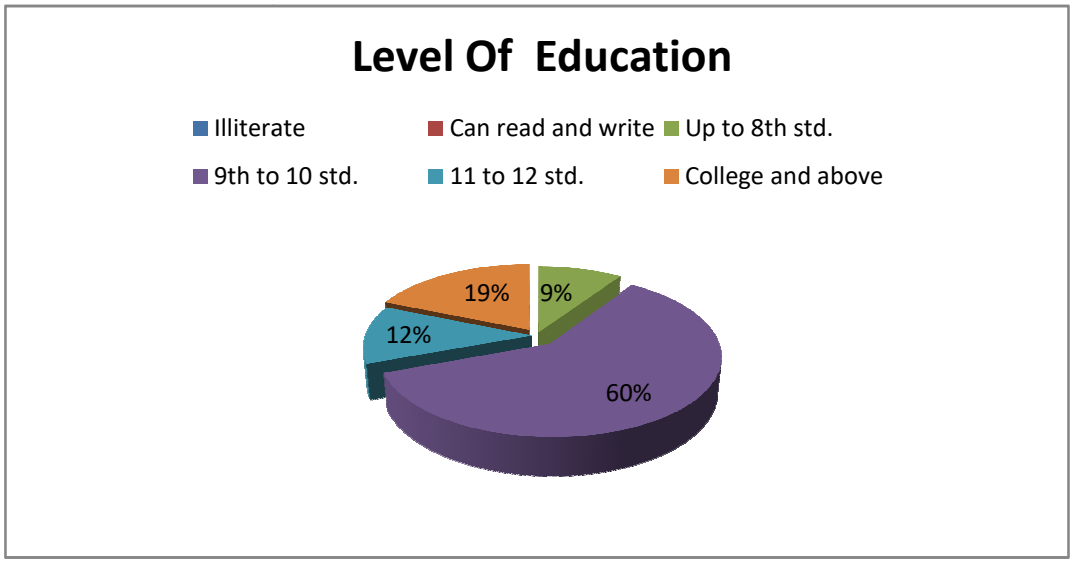


Fig. 4. Distribution of the poultry entrepreneurs according to their level of education in Jhunjhunu district



From the above fact, it can be concluded that great majority of the respondents had education from primary to secondary level of education. Rajasthan government created primary and secondary level of education facility at village level. Their awareness regarding importance of education to improve their economic condition might be the possible explanation for this type of findings.

Similar line of findings were reported by Khalache *et a*l. (2003), A. Razzaq (2011) Olagunju (2011), Oyebanjo (2011), Jatto (2012), Ibitoye (2013), Babalola (2014), Esiobu (2014) **,** Ng'ang'a (2014) and Ojeleye (2014).

4.1.3 Experience in poultry farm management

It is well known fact that man can learn from his own experiences. So the data were collected with respect to experience of the poultry owners in poultry farming. On the basis of experience in poultry, the respondents were categorized into four groups. The data of which are presented in Table - 5 and depicted in figure - 5 and figure - 6.

Table-5: Distribution of the respondents according to their poultry farming experience

n=175

Sr. No.	Year of experience	Ajmer		Jhunjhunu	
		Number	Per cent	Number	Per cent
1	1 to 5 years of experience	28	28	19	25.33

2	5.1 to 10 years of experience	21	21	44	58.66
3	10.1 to 15 years of experience	35	35	12	16.00
4	Above 15 years of experience	16	16	00	00
	Total	100	100	75	100

Fig. 5. Distribution of the poultry entrepreneurs according to their poultry farming experience in Ajmer district.

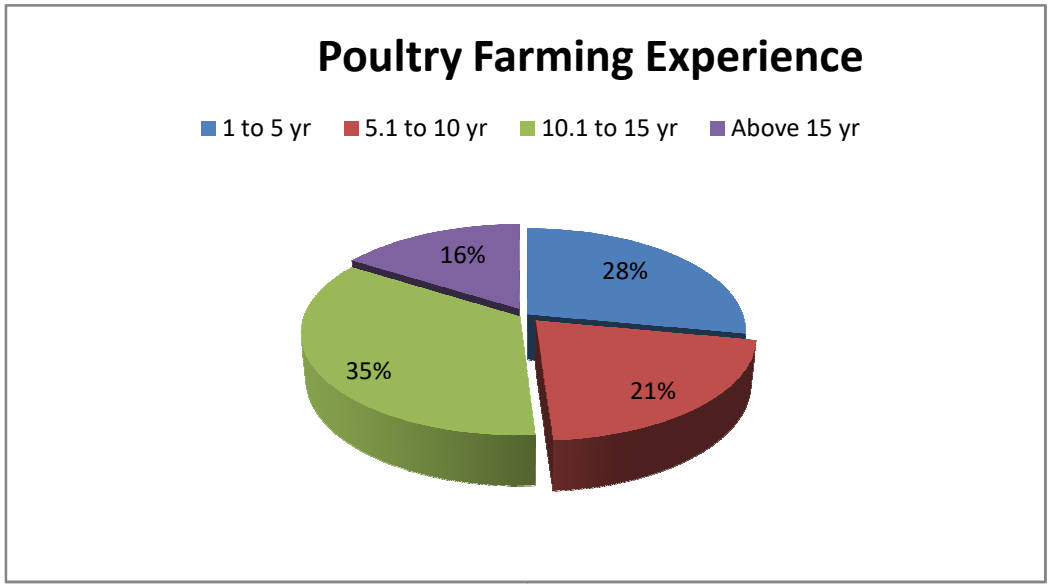
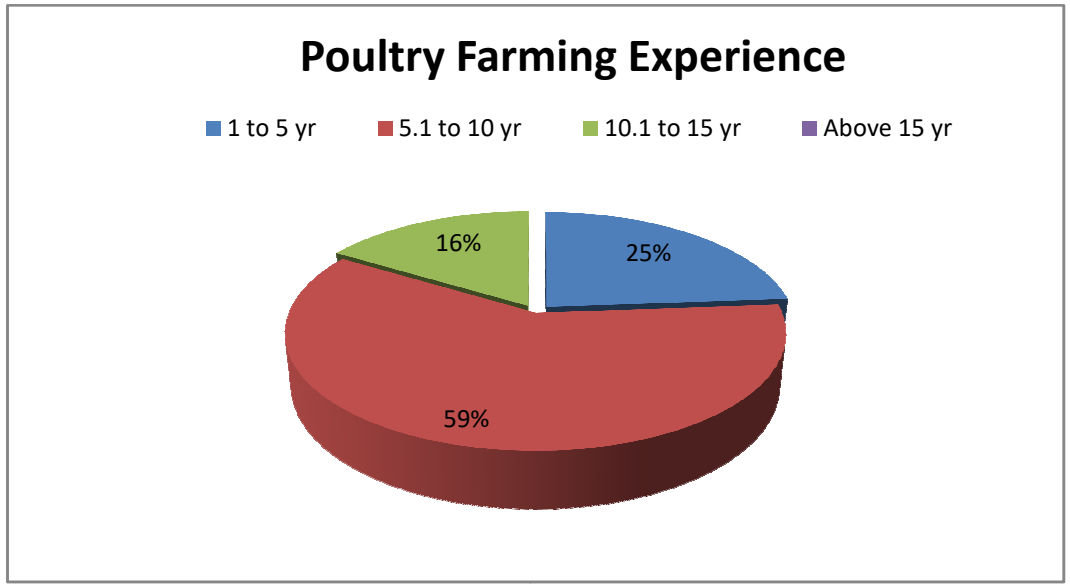


Fig. 6. Distribution of the poultry entrepreneurs according to their poultry farming experience in Jhunjhunu district.



It is clear from Table 5 that in Ajmer district 35 per cent of the respondents had 10.1 to 15 years of experience in poultry farming, followed by 28 per cent and 21 per cent of the respondents who were having poultry farming experience from 1 to 5 years and 5.1 to 10 years, respectively . Only 16 per cent poultry entrepreneurs were having experience of above 15 years.

The probable reason for this might be that majority of the poultry owners belonged to middle age group and they might had accepted parental occupation from very young age. Further, road, transport and marketing facilities were already available in the study area which facilitated them for marketing of their product. Olagunju (2011), Oyebanjo (2011), Botlhoko (2013), Ibitoye (2013), Babalola (2014) and Esiobu (2014) also reported similar findings. Whereas, in Jhunjhunu district majority (58.66 per cent) of the poultry entrepreneurs had 5.1 to 10 years of experience followed by 1 to 5 years of experience by 25.33 per cent poultry entrepreneurs and 16.00 per cent respondent have poultry farming experience between 10.1 to 15 years. In Jhunjhunu district none of the poultry entrepreneurs have more than 15 years of experience,which may be possible due to the reason that poultry entrepreneurs in Jhunjhunu district have adopted this profession on large scale in the last decade only.

4.1.5 Training received in poultry management

Training is must in the process of technological change and adoption of poultry innovations. Proper training helps in acquiring more knowledge, developing skill and thereby promotes speedy adoptions of improved poultry production technologies which is the component of management efficiency. In the present study, training received by the poultry owners was studied in order to know its influence on management efficiency. The data collected from respondents about training received are presented in Table - 6 and depicted in figure - 7 and figure - 8.

Table - 6: Distribution of the respondents according to their training received in poultry

n=175

Sr. No.	Training received in poultry	Ajmer		Jhunjhunu	
		Number	Per cent	Number	Per cent
1	Training received	100	100	75	100

2	Training not received	00	00	00	00
	Total	100	100	75	100

The data presented in Table 6 revealed that 100 per cent of the respondents in both Ajmer and Jhunjhunu district were trained in poultry. Thorat (2005) also reported similar findings.

As it appears from the table that all the respondents were trained. The possible reasons might be that, the training certificate is mandatory for poultry entrepreneurs to acquire loan from banks.

Fig. 7. Distribution of the poultry entrepreneurs according to their training received in poultry in Ajmer district

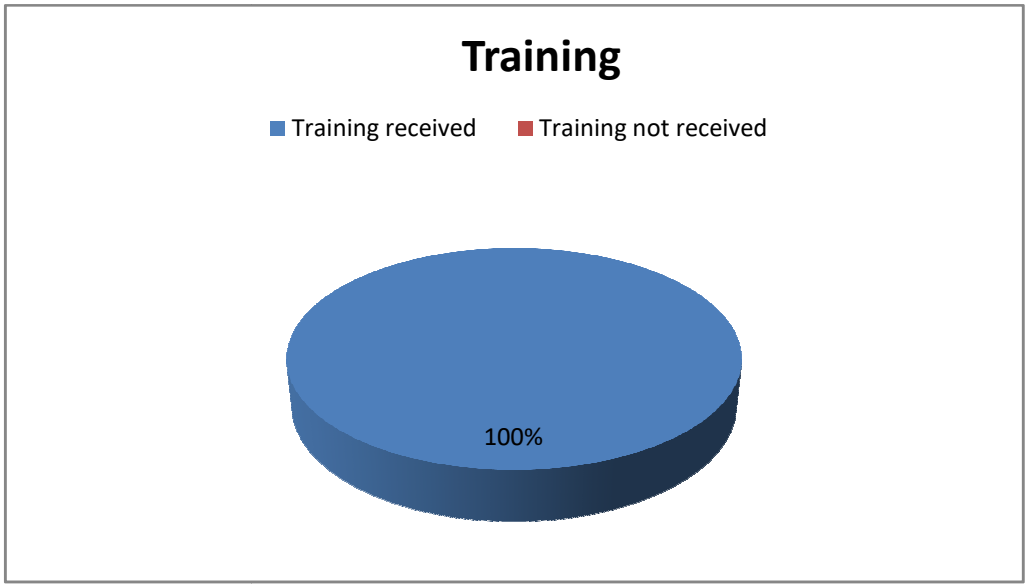
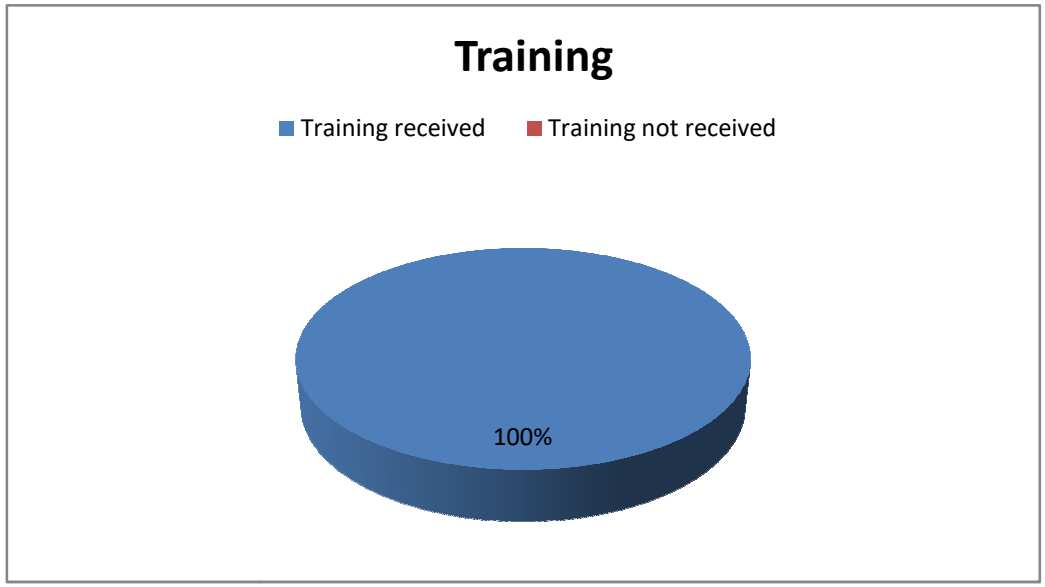


Fig. 8. Distribution of the poultry entrepreneurs according to their training received in poultry in Jhunjhunu district



4.1.6 Community

Results in table - 7 revealed that in Ajmer district, majority (60 per cent) of the poultry owners fall in Muslim community followed by 40 per cent Hindu. Contrary to this, in Jhunjhunu district 89.33 respondents were Hindu and remaining 10.66 per cent of poultry owners were of Muslim community. It may be due to difference in the population density of these communities in the two districts.

Table - 7: Distribution of the respondents according to their caste

n=175

Sr. No.	Category	Ajmer		Jhunjhunu	
		Number	Per cent	Number	Per cent
1	Hindu	40	40	67	89.33
2	Muslim	60	60	08	10.66
3	Sikh	00	00	00	00.00
4	Christian	00	00	00	00.00
5	Others	00	00	00	00.00
	Total	100	100	75	100

Fig. 9. Distribution of the poultry entrepreneurs according to their community in Ajmer district

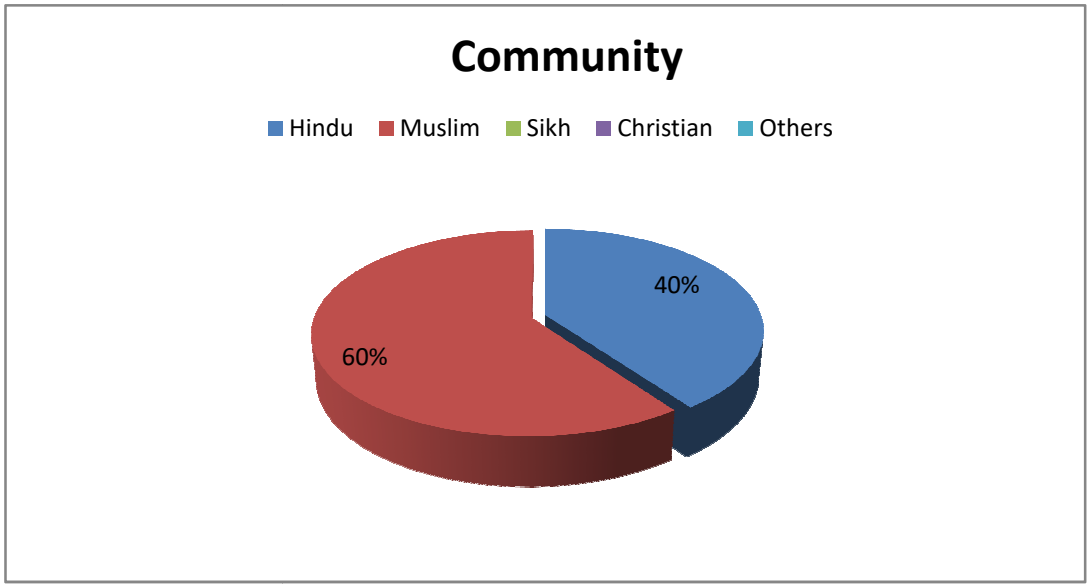
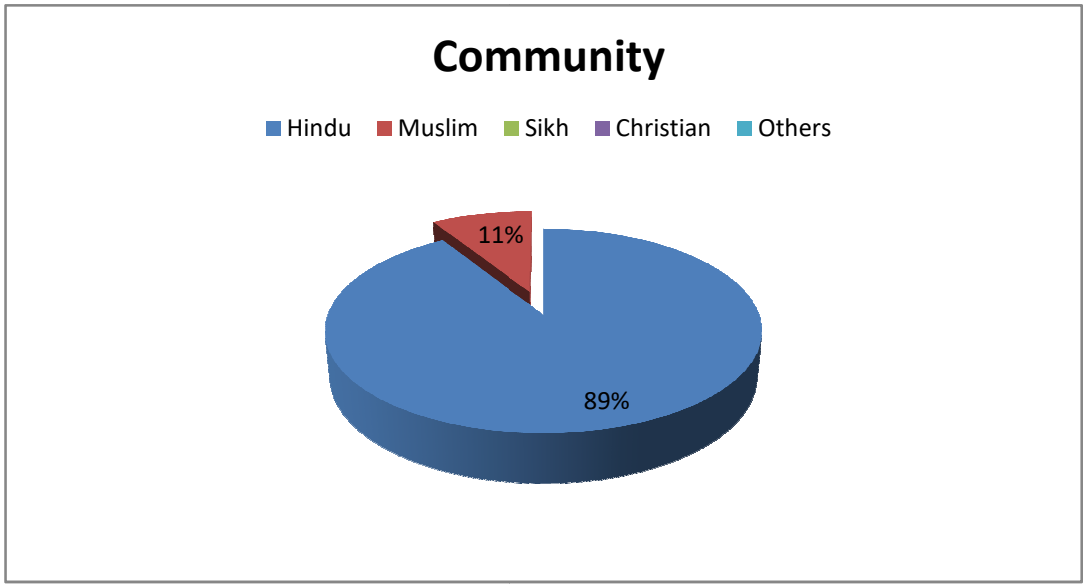


Fig. 10. Distribution of the poultry entrepreneurs according to their community in Jhunjhunu district



4.1.7 Organizational Participation

The data presented in Table - 8(a) reflects that in Ajmer district majority (71 per cent) of the respondents had medium organizational participation, while 19 per cent respondents had high level organizational participation and only 10 per cent of respondents had low level of organizational participation.

In Jhunjhunu district, majority (64.00 per cent) of poultry farm owners in Jhunjhunu district had middle level of organizational participation followed by low level of organizational participation by 25.33 per cent poultry entrepreneur and high level of organizational participation by 10.66 per cent poultry entrepreneur.

Fig. 11. Distribution of the poultry entrepreneurs according to their organizational participation in Ajmer district

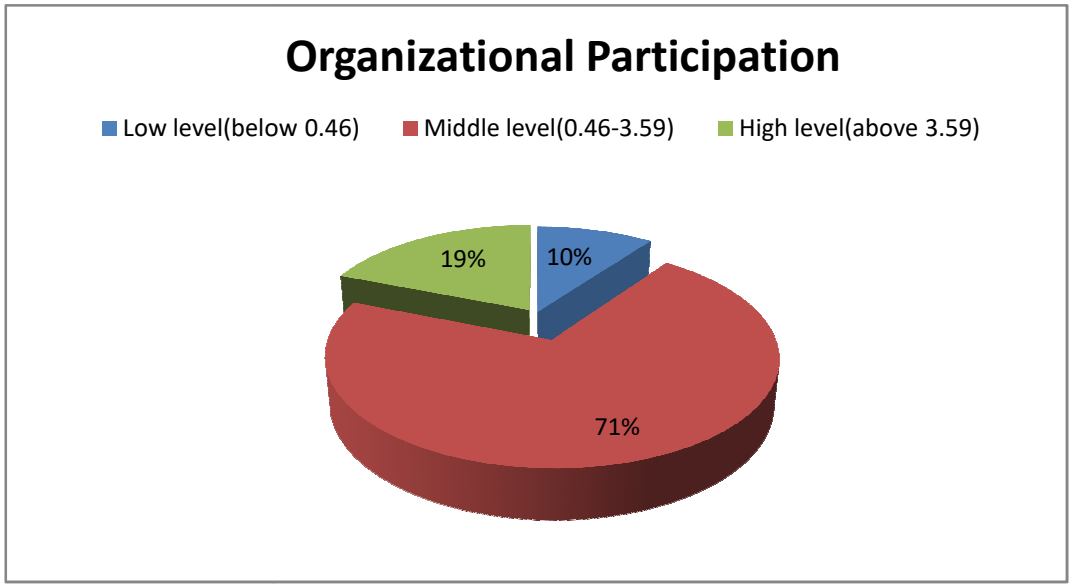


Fig. 12. Distribution of the poultry entrepreneurs according to their organizational participation in Jhunjhunu district

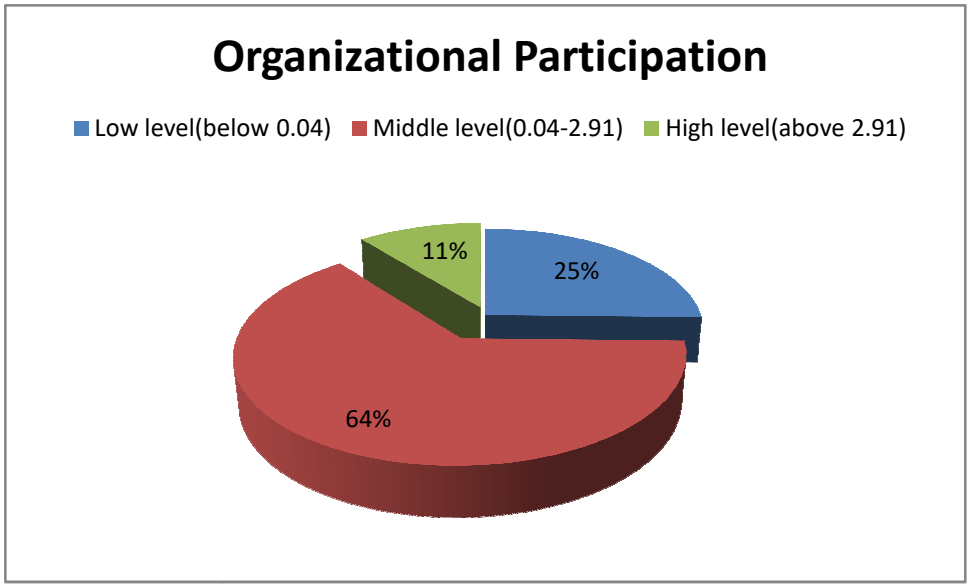


Table -8(a): Distribution of the respondents according to their organizational participation in Ajmer district.

n=100

Sr. No.	Organizational participation (Ajmer)	Number	Per cent
1	Low level (Below 0.46)	10	10
2	Middle Level (Below 0.46 to 3.59)	**71**	**71**
3	High level (Above 3.59)	19	19
	Total	110	100

Table -8(b): Distribution of the respondents according to their organizational participation in Jhunjhunu district

n=75

Sr. No.	Organizational participation (Jhunjhunu)	Number	Per cent
1	Low level (Below 0.04)	19	25.33
2	Middle Level (Below 0.04 to 2.91)	**48**	**64.00**
3	High level (Above 2.91)	08	10.66
	Total	75	100

The results of Nimbalkar (1998), Patel (1999), Jatto (2012), Babalola (2014), Esiobu (2014) and Femi Oluwatusin (2014) were in conformity that majority of respondents had middle level of organizational participation.

4.1.8 Mass media exposure

Communication exposure helps people to gain general awareness as well as provides scientific and technical information and plays an important role to improve their socio-techno-economic standards. The information regarding mass media exposure was collected as the nature and frequency of respondent's involvement in different mass media such as newspaper, radio, television, digital media and magazine. The respondents were classified into three categories as shown in Tables - 9 (a) and 9 (b) below and depicted in figure - 13 and figure - 14.

The data presented in Table - 9 (a) indicate that majority (60 per cent) of the poultry entrepreneurs in Ajmer had medium level of mass media exposure followed by 25 per cent with high and 15 per cent with low level of mass media exposure.

In Jhunjhunu district 86.66 per cent of the poultry entrepreneurs had medium level of mass media exposure followed by 13.33 per cent who had high level of mass media exposure. None of the poultry entrepreneur in Jhunjhunu district falls under the category of low level mass media exposure, which might be due to high literacy rate in Jhunjhunu.

Table - 9 (a): Distribution of the respondents according to their mass media exposure

Sr. No.	Mass media exposure (Ajmer)	Number	Per cent
1	Low level (Below 2.34)	15	15
2	Medium level (2.34 to 6.99)	**60**	**60**
3	High level (Above 6.99)	25	25
	Total	100	100.00

Table - 9 (b): Distribution of the respondents according to their mass media exposure

n=75

Sr. No.	Mass media exposure (Jhunjhunu)	Number	Per cent
1	Low level (Below 2.91)	00	00
2	Medium level (2.91 to 7.45)	**65**	**86.66**
3	High level (Above 7.46)	10	13.33
	Total	75	100.00

Fig.13. Distribution of the poultry entrepreneurs according to their mass media exposure in Ajmer district

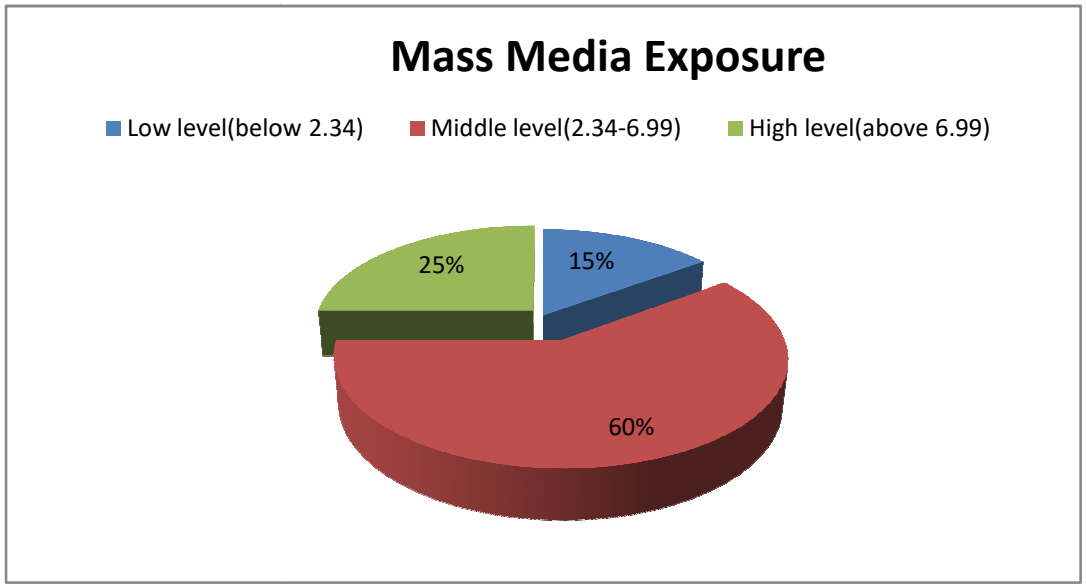


Fig. 14. Distribution of the poultry entrepreneurs according to their mass media exposure in Jhunjhunu district

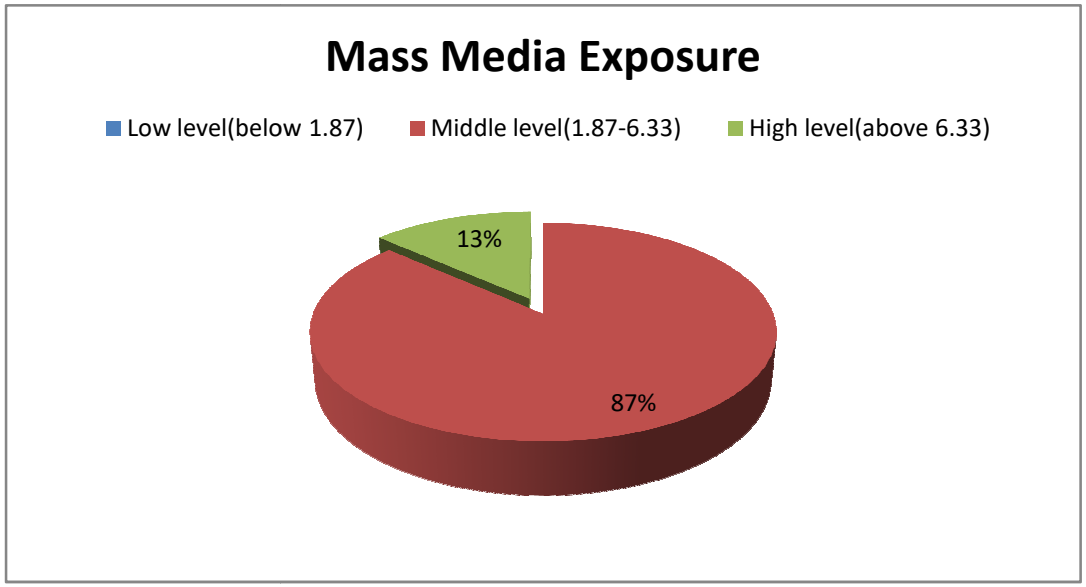

Mass Media Exposure
Low level(below 1.87)
Middle level(1.87-6.33)
High level(above 6.33)
13%
87%

Fig. 15. Distribution of the poultry entrepreneurs according to their contact with extension agency in Ajmer district

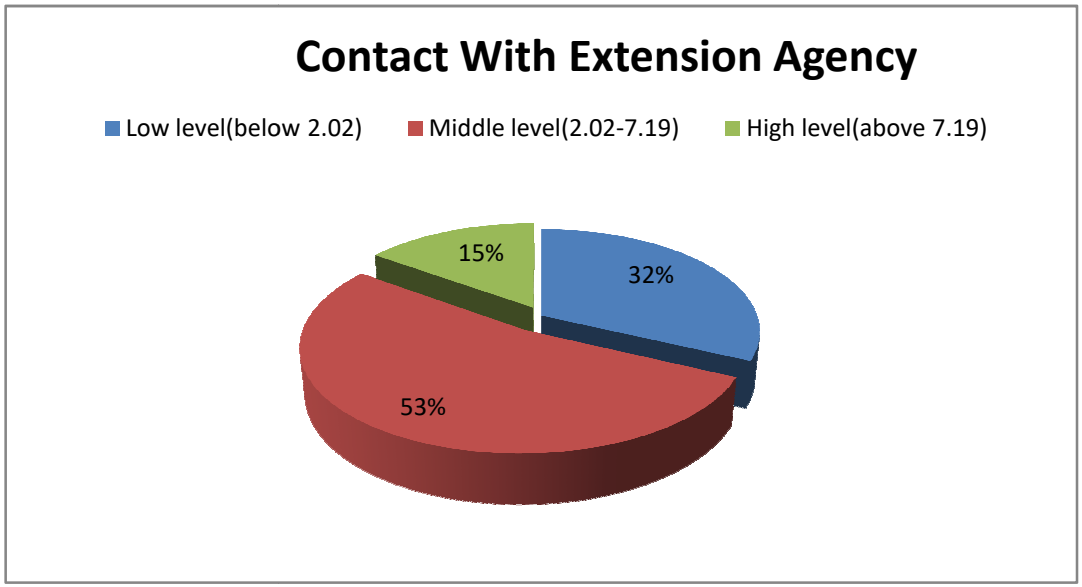
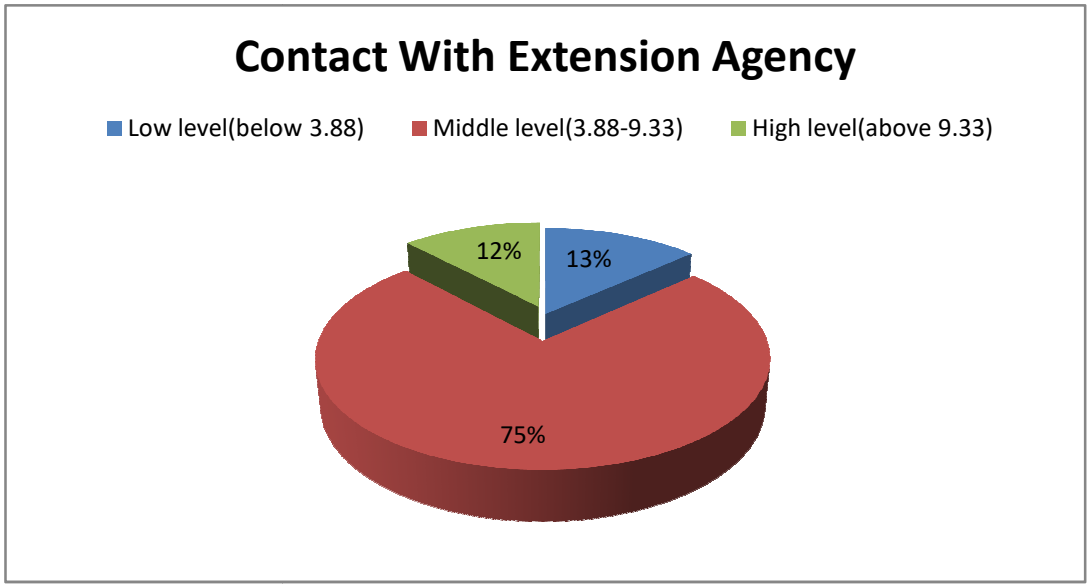


Fig. 16. Distribution of the poultry entrepreneurs according to their contact with extension agency in Jhunjhunu district



It was observed that about 85 per cent of the respondents in Ajmer district and 100 per cent respondents in Jhunjhunu district possessed medium to high exposure to mass media. This might be due to availability of mass media and awareness of the respondents regarding programs broadcasted and telecasted on radio and television and digital media penetration, respectively as well as availability of farm literature published by various agencies.

Similar results are reported by Siddhartha (2001), Vaghela (2002), Chauhan *et al*. (2003), Patel (2005), Thorat (2005) and G. J. Botlhoko (2013).

4.1.9 Extension Contact

Extension contact helps the farmers to acquire detail knowledge about livestock technology and to seek help directly from extension personnel to solve their problems. Sharing the experience by interacting with each other may increase confidence, which may result in high rate of adoption. Keeping these points in view, extension contact of the poultry owners was studied and data of which are stratified in Table - 10 (a) and 10 (b) given below and depicted in figure - 15 and figure - 16.

Table - 10 (a) Distribution of the respondents according to their contact with extension agency Ajmer district.

n=100

Sr. No.	Contact with extension agency (Ajmer)	Number	Per cent
1	Low level (Below 2.02)	32	32
2	Medium level (2.02 to 7.19)	**53**	**53**
3	High level (Above 7.19)	15	15

	Total	100	100.00

Table - 10 (b) Distribution of the respondents according to their contact with extension agency in Jhunjhunu district.

n=75

Sr. No.	Contact with extension agency (Jhunjhunu)	Number	Per cent
1	Low level (Below 3.88)	10	13.33
2	Medium level (3.88 to 9.33)	**56**	**74.66**
3	High level (Above 9.33)	09	12
	Total	75	100.00

The result of the study reveal that majority of (53 per cent) of the poultry entrepreneurs in Ajmer district had medium extension contact, whereas 32 per cent and 15 per cent of the respondents had low and high extension contact, respectively. Similarly in Jhunjhunu district, 74.66 per cent of poultry entrepreneur had medium level of extension contact followed by 13.33 per cent and 12.00 per cent of respondents who had low and high extension contact, respectively.

It can be inferred from the results that in both Ajmer and Jhunjhunu districts majority of the poultry owners had medium level of extension contact. As it was observed in the study area that majority of the respondents were having literacy level at least up to primary education, this much literacy level might have partially driven them to contact extension personnel

to quench their curiosity. On the other hand, Government of Rajasthan posted village extension workers at village level. They have to visit village as per their scheduled tour programme, which might be the probable reasons for these types of findings.

The finding of the present study is in agreement with the findings reported by Sidhu et al. (1997), Temkar (2000) Thorat (2005), Bhatt (2006), N. A. Jatto (2012) and Esiobu (2014)

4.1.10 Occupation

Table - 11 revealed that in Ajmer district, majority of the poultry entrepreneurs (64 per cent) were having poultry plus farming as their occupation. It was followed by 25 per cent of respondents who were having poultry occupation with agriculture and service and rest 11 percent were with poultry and service i.e. hotel business, shops etc.

In Jhunjhunu district, majority of the poultry entrepreneurs (69.33 per cent) were having poultry and farming as their main occupation. But in contrary to Ajmer district, it was followed by 18.66 respondents who were having poultry and service

i.e. hotel business, shops etc. as main occupation and 12.00 per cent respondents were having poultry occupation with agriculture and service.

Fig.17. Distribution of the poultry entrepreneurs according to their occupation in Ajmer district

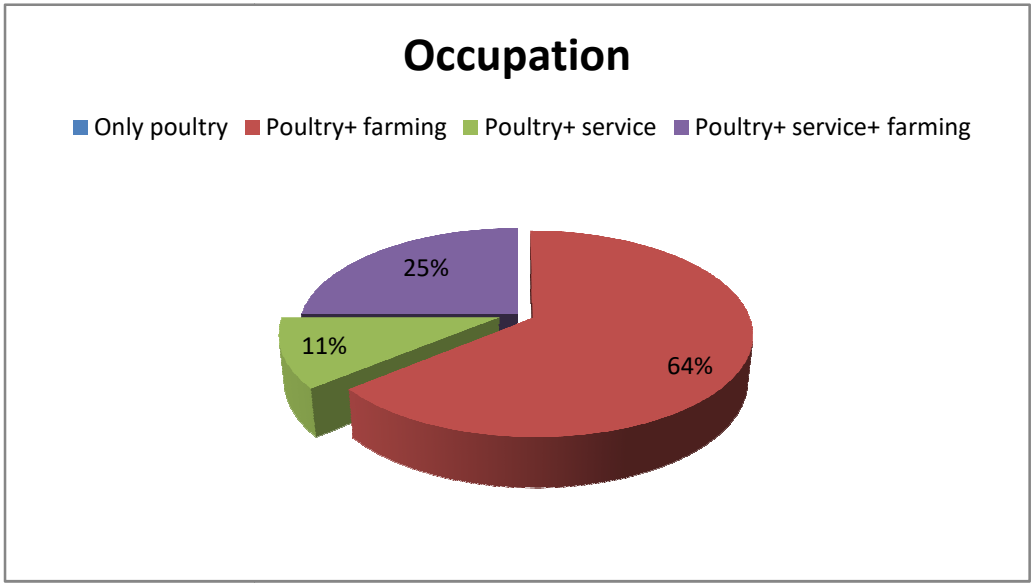


Fig.18. Distribution of the poultry entrepreneurs according to their occupation in Jhunjhunu district

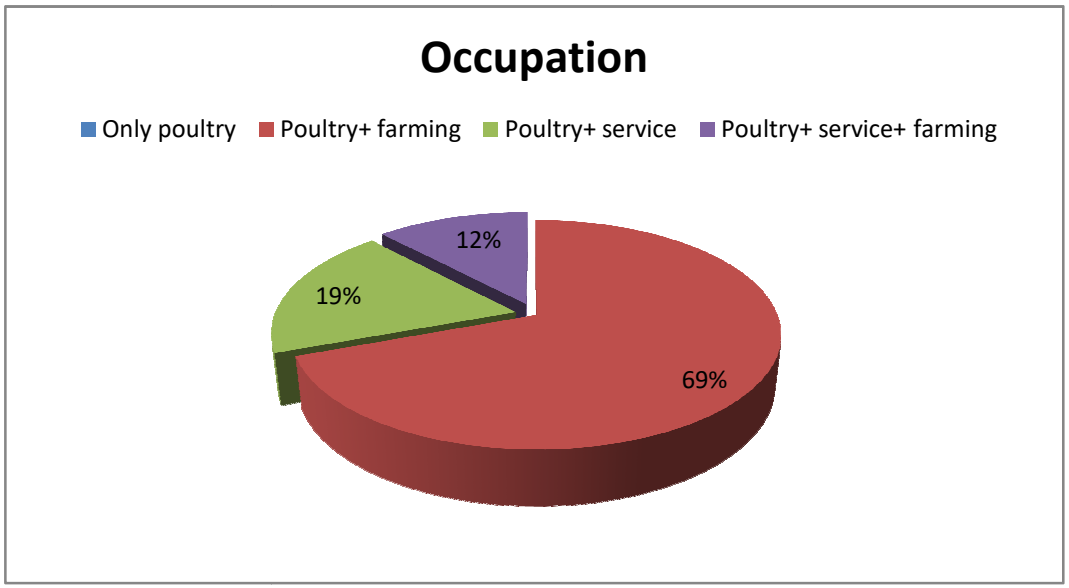


Table - 11 : Distribution of the poultry entrepreneurs according to their occupation

n=175

Sr. No.	Category	Ajmer	Jhunjhunu

		Number	Per cent	Number	Per cent
1	Only poultry	00	00	00	00
2	Poultry+ Farming	**64**	**64**	**52**	**69.33**
3	Poultry+ Service	11	11	14	18.66
4	Poultry+Farming+Service	25	25	09	12
	Total	100	100	75	100

It is inferred that majority of poultry entrepreneurs (64 and 69.33 per cent) in both Ajmer and Jhunjhunu district, respectively were doing integrated farming as their main occupation. The probable reason might be that they are continuing with their parent's occupation.

The results are in concurrence with the findings of Patel (1996), Basavarajappa *et al.*(1999), Patel (1999), Bhattu *et al.* (1998) and Oyebanjo (2011) and N. A. Jatto (2012).

4.1.11 Size of the poultry farm

Size of the poultry farm is one of the most important indicators to measure one's socio-economic status. Many farm equipment and machineries such as waterer, feeder, automatic water drinker, sprinklers etc., can be used economically only in continuous and large strip of farms. Adoption of an innovation as a matter of risk takes is not possible by small poultry owners and many innovations

require a substantial amount of capital which is beyond the resources of small poultry owners. Thus the poultry owners of large size of poultry farm tend to adopt improved poultry management practices more than the owners of small size of poultry farm. Keeping these points in view, size of the poultry farm of poultry owners was studied and data of which are presented in Table - 12 and diagrammatically depicted in figure - 19 and figure - 20.

The data presented in Table - 12 indicated that more than half (69 per cent and 64 per cent) of the poultry owners in both Ajmer and Jhunjhunu districts, respectively had small size of the poultry farm.

In Ajmer district 17 per cent of the poultry owners had medium size of the poultry farm in between 6,001 to 9,000 birds and 14 per cent of respondent had above 9,000 birds, Whereas, in Jhunjhunu district 18.66 per cent of respondents had above 9,000 birds which was followed by 17.33 per cent of respondents who had medium size of the poultry farm in between 6,001 to 9,000 birds.

Fig. 19. Distribution of the poultry entrepreneurs according to their size of the poultry farm in Ajmer district

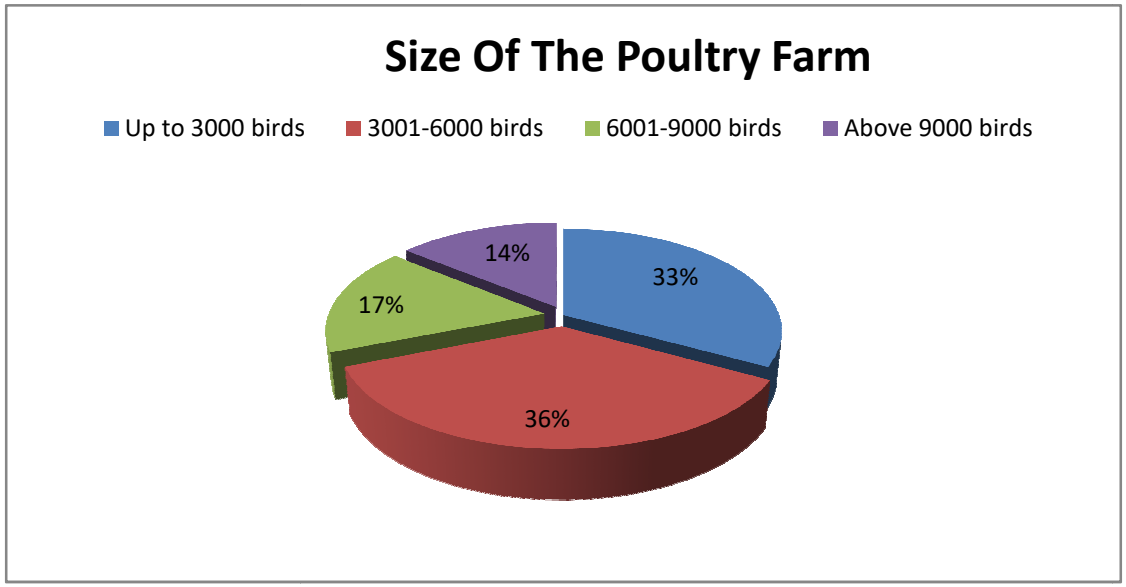


Fig. 20. Distribution of the poultry entrepreneurs according to their size of the poultry farm in Jhunjhunu district

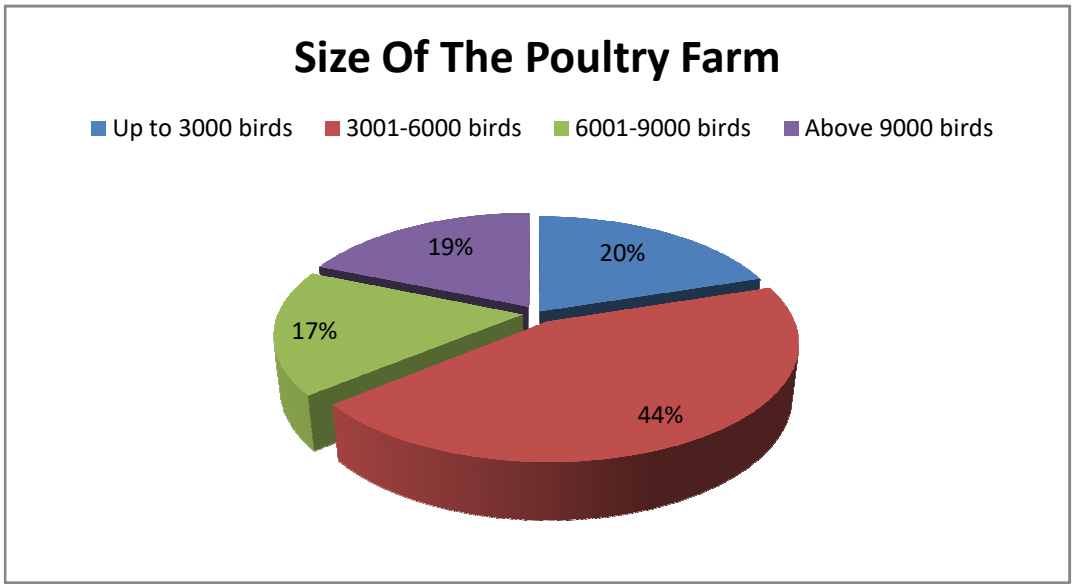

Size Of The Poultry Farm
Up to 3000 birds
3001-6000 birds
6001-9000 birds
Above 9000 birds
19%
20%
17%
44%

Table - 12: Distribution of the respondents according to their size of the poultry farm

n=175

Sr. No.	Size of the poultry farm	Ajmer		Jhunjhunu	
		Number	**Per cent**	**Number**	**Per cent**
1	Up to 3000 birds	**33**	**33**	**15**	**20**
2	3001 to 6000 birds	36	36	33	44
3	6001 to 9000 birds	17	17	13	17.33
4	Above 9,000 birds	14	14	14	18.66
	Total	100	100	75	100

On the basis of above facts, it can be concluded that majority of the poultry entrepreneurs had small to medium size of poultry farm. This might be due to the fact that though poultry has been considered as a profitable enterprise, high level of risk and uncertainty are integral component of this enterprise. In this situation poultry entrepreneurs might have decided to take medium risk and adopted small to medium size of poultry farm.

Similar results are reported by Bhattu *et al*. (1998), Ibitoye (2013), Babalola (2014) and Esiobu (2014)

4.1.12 Annual income

Higher income leads to high investment in poultry farming and thus reduce technological gap. Multipurpose programme planning can only be possible when the finance is available on individual's hand. Keeping this in view, annual income of poultry owners was studied and results are presented in Table - 13 and depicted in figure - 21 and figure - 22.

Fig. 21. Distribution of the poultry entrepreneurs according to their annual income in Ajmer district

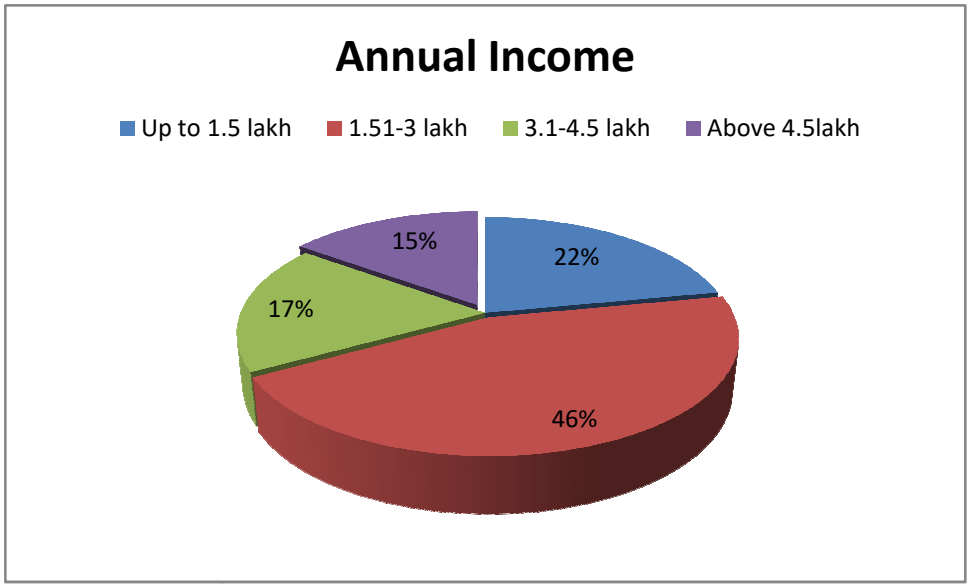


Fig. 22. Distribution of the poultry entrepreneurs according to their annual income in Jhunjhunu district

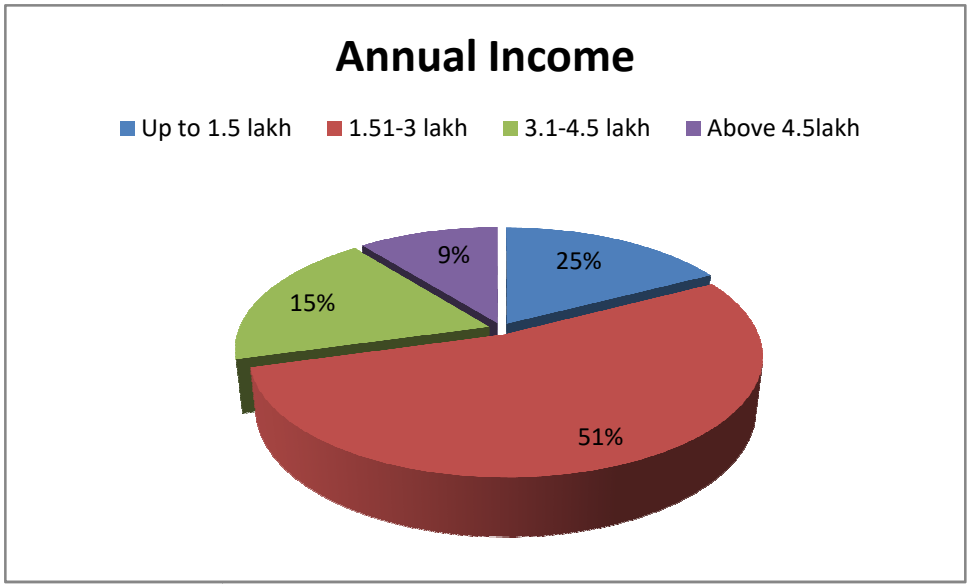


Table - 13: Distribution of the respondents according to their annual income

n= 175

Sr. No.	Annual income	Ajmer		Jhunjhunu	
		Number	Per cent	Number	Per cent
1	Up to 1.5 lakh	22	22.00	19	25.33
2	1.51 lakh to 3 lakh	46	46.00	38	50.67
3	3.1 lakh to 4.5 lakh	17	17.00	11	14.67
4	Above 4.5 lakh income	15	15.00	7	9.33
	Total	100	100	75	100

The data presented in Table - 13 indicate that majority (46.00 per cent and 50.67 per cent) of the respondents had annual income i.e up to Rs. 1.51 lakh to 3 lakh, followed by 22.00 per cent and 25.33 per cent respondents having low level annual income (Up to 1.5 lakh) and 17.00 per cent and 14.67 of (Rs .3.1 lakh to 4.5 lakh) the respondents had medium level annual income. Only 15.00 per cent and 9.33 per cent of respondents had annual income above 4.5 lakh in both Ajmer and Jhunjhunu districts, respectively.

It can be concluded that majority of the respondents had medium to low level of annual income. It might be due to the fact that majority of the poultry owners in present study, possesses small size of poultry farms.

These finding are in agreement with the findings reported by Vaghela (2002), Bhatt (2006), Patel (2007), Ibitoye (2013), Babalola (2014) and Esiobu (2014).

4.1.13 Scientific Orientation

This is characterized in belief that science and scientific approaches helps to solve problems of farming. It is true that scientifically oriented farmers always inclined to use scientific methods in farming and have a favourable perception towards innovations. This leads the farmers to adopt improved poultry farming practices. The data regarding scientific orientation are presented in Table - 14 (a) and 14 (b) given below and depicted in figure - 23 and figure - 24

Fig. 23. Distribution of the poultry entrepreneurs according to their scientific orientation in Ajmer district

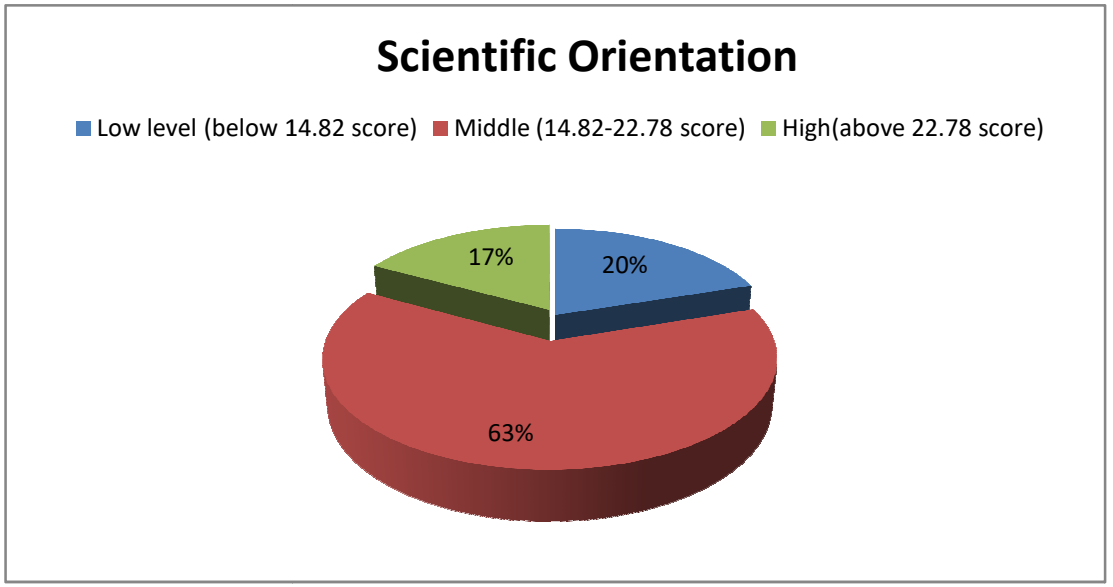


Fig. 24. Distribution of the poultry entrepreneurs according to their scientific orientation in Jhunjhunu district

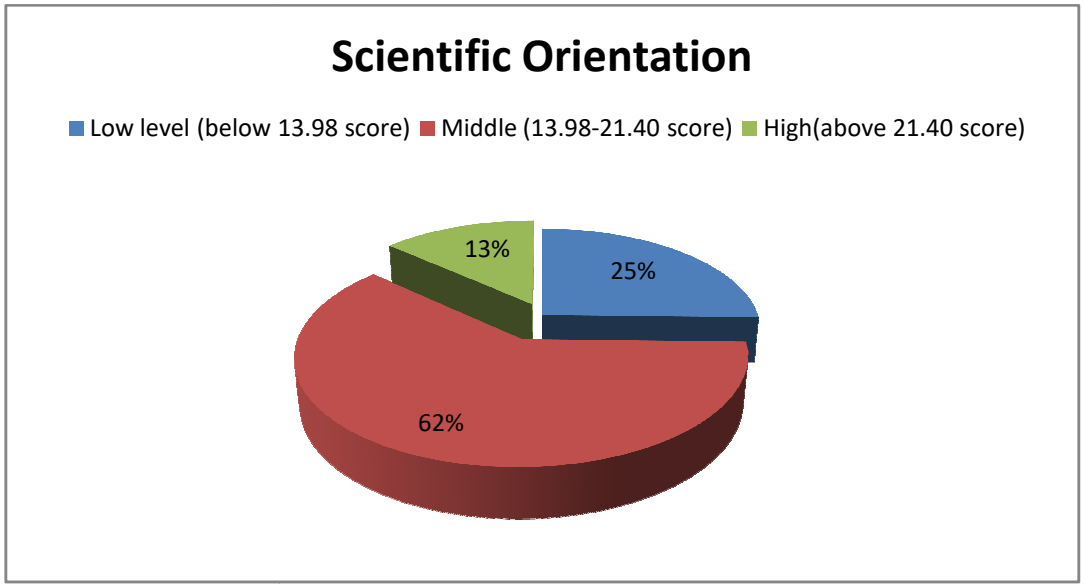


Table-14 (a): Distribution of the respondents according to their scientific orientation in Ajmer district

n=100

Sr. No.	Scientific orientation	Number	Per cent
1	Low level (Below 14.82 score)	20	20

2	Medium level (14.82 to 22.78 score)	**63**	**63**
3	High level (Above 22.78 score)	17	17
	Total	110	100.00

Table - 14 (b): Distribution of the respondents according to their scientific orientation Jhunjhunu district

n = 75

Sr. No.	Scientific orientation	Number	Per cent
1	Low level (Below 13.98 score)	19	25.33
2	Medium level (13.98 to 21.40 score)	**46**	**61.33**
3	High level (Above 21.40 score)	10	13.33
	Total	75	100.00

Table - 14 (a) and 14 (b) clearly shows that majority (63.00 per cent and 61.33 per cent) of the respondents were found with medium scientific orientation followed by low (20.00 per cent and 25.33 per cent) and high (17.00 per cent and 13.33 per cent) scientific orientation in both Ajmer and Jhunjhunu districts respectively.

Thus, it can be concluded that majority of the poultry entrepreneurs had medium scientific orientation in both Ajmer and Jhunjhunu districts, respectively. The probable reason might be due to their educational level and the technical know-how regarding modern enterprise.

These findings are further strengthened by the results reported by Temkar (2000), Chauhan (2003), Patel (2005), Thorat (2005), Bhatt (2006) and Patel (2007)

4.1.14 Risk orientation

Poultry farming in general is characterized by many uncontrollable variables such as uncertainty; disease infestation and unpredicted price behaviors. Studies in the developed countries have shown that individuals vary in their willingness to take risk. Therefore, it was felt appropriate to study the risk orientation of the farmers. Data in this regard are presented in Table -15 and depicted in figure - 27 and figure - 28.

Table - 15 (a): Distribution of the respondents according to their risk orientation in Ajmer district

n=100

Sr. No.	Risk orientation	Number	Per cent

1	Low level (Below 13.97)	20	20
2	Medium level (13.97 to 22.55)	**59**	**59**
3	High level (Above 22.55)	21	21
	Total	100	100.00

Mean= **S.D. =**

Table - 15 (b): Distribution of the respondents according to their risk orientation in Jhunjhunu district

n= 75

Sr. No.	Risk orientation	Number	Per cent
1	Low level (Below 14.94)	17	22.66
2	Medium level (14.94-21.70)	**37**	**49.33**
3	High level (Above 21.70)	21	28.00
	Total	75	100.00

The data presented in Table - 15 (a) and 15 (b) indicate that majority (59.00 per cent and 49.33 percent) of the respondents had medium level of risk orientation followed by 21.00 per cent and 28.00 per cent with high and 20.00 per cent and 22.66 per cent with low level of risk orientation in both Ajmer and Jhunjhunu districts, respectively.

Fig. 25. Distribution of the poultry entrepreneurs according to their risk orientation in Ajmer district

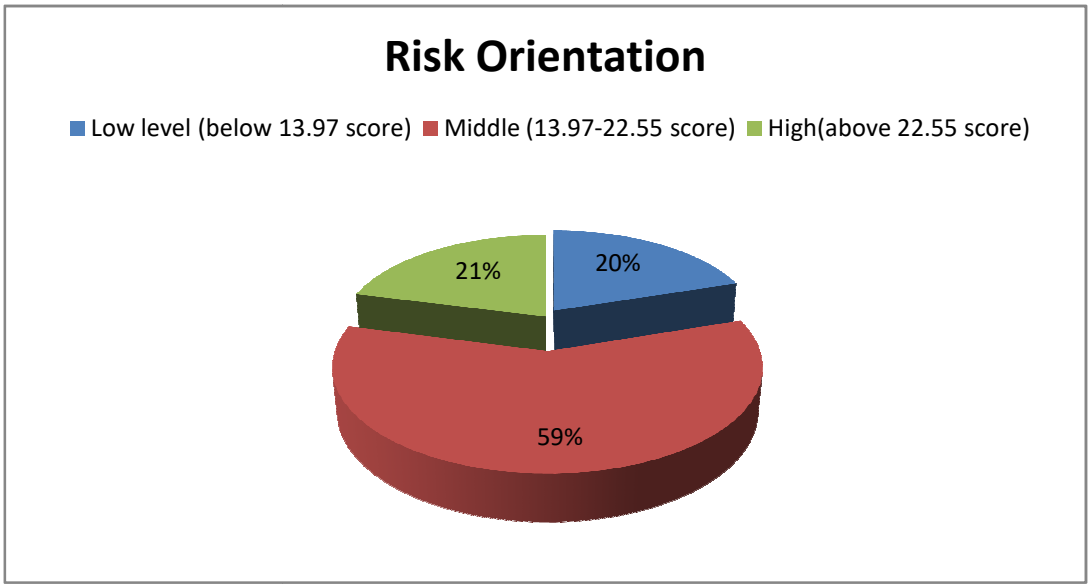
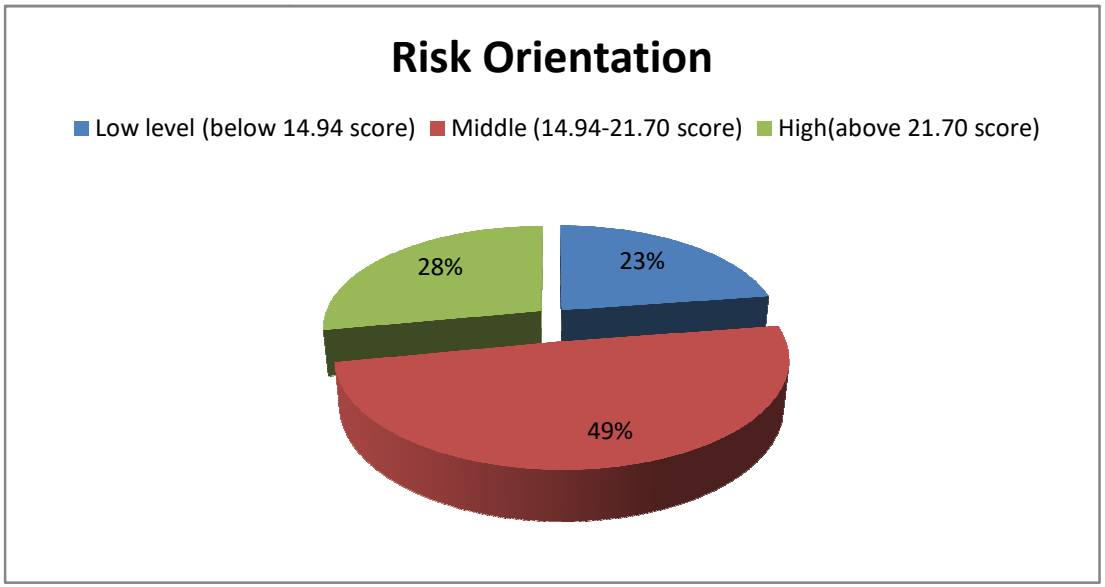


Fig. 26. Distribution of the poultry entrepreneurs according to their risk orientation in Jhunjhunu district



It means that majority of the respondents were oriented towards encountering risk on uncertainty in new technology innovation. The probable reason might be that the necessary confidence and capabilities were developed in them to bear risk.

This finding of the study is in agreement with the findings reported by Manker *et al*. (2000), Patel (2005), Thorat (2005) and Bhatt (2006).

4.2 EXTENT OF ADOPTION OF THE POULTRY ENTREPRENEURS ABOUT POULTRY MANAGEMENT PRACTICE

The adoption process is the mental process through which an individual processes from first hearing about an innovation to its final adoption, while adoption is a decision to the full use of an innovation. With a view to find out extent of adoption of poultry management practices of poultry farming, the poultry entrepreneurs were asked to give the information about the management practices adopted by them. The data were collected and presented in Table 16 (a) and 16 (b) and diagrammatically depicted in figure- 29 and figure- 30.

Table - 16 (a): Distribution of the respondents according to their extent of adoption in Ajmer district.

n=100

Sr. No.	Adoption level (Ajmer)	Number	Per cent
1	Low level (Below 44.29)	24	24
2	Medium level (44.29 to 58.97)	**66**	**66**

3	High level (Above 58.97)	10	10
	Total	100	100.00

Table - 16 (b): Distribution of the respondents according to their extent of adoption in Jhunjhunu district

n=100

Sr. No.	Adoption level (Jhunjhunu)	Number	Per cent
1	Low level (Below 41.52)	13	17.33
2	Medium level (41.52 to 59.08)	**54**	**72.00**
3	High level (Above 59.08)	08	10.66
	Total	75	100.00

It was observed that great majority (66.00 per cent and 72.00 per cent) of the poultry entrepreneurs were found with medium level of adoption of poultry management practices, followed 24.00 per cent and 17.33 per cent with low and 10.00 per cent and 10.66 with high adoption level of management practices in both Ajmer and Jhunjhunu district, respectively.

It can be concluded that majority of the poultry entrepreneurs in both Ajmer and Jhunjhunu district had medium level of adoption. The probable reason for this might be that majority of the poultry entrepreneurs were educated up to primary level or more which might have helped them to understand to adopt. The other reason might be due to fact that majority of the respondents had medium level of knowledge, scientific orientation and risk orientation.

The findings are in concurrence with finding reported by Patel (1996) and Chauhan (2003).

4.3 KNOWLEDGE LEVEL OF THE POULTRY ENTREPRENEURS ABOUT IMPROVED POULTRY MANAGEMENT

Knowledge is the cognitive behavior of an individual. The knowledge is acquired through learning process. Once the knowledge is acquired, it produces changes in thinking process of an individual, which would lead to further changes in rational decision that is prerequisite for the adoption of any innovation.

Keeping this in view, an attempt has been made to determine the level of knowledge of poultry entrepreneurs about poultry management practices and the data collected and analyzed in this regard are presented in Table - 17 (a) and depicted in figure - 27 and figure - 28.

Table - 17 (a): Distribution of the respondents according to their knowledge regarding poultry management practices in Ajmer district.

n=100

Sr. No.	Level of knowledge	Number	Per cent
1.	Low level (Below 7.20 score)	20	20
2.	Medium level (7.20 to 14.41 score)	**65**	**65**
3.	High level (Above 14.41 score)	15	15
	Total	100	100.00

Table - 17 (b): Distribution of the respondents according to their knowledge regarding poultry management practices in Jhunjhunu district.

n= 75

Sr. No.	Level of knowledge	Number	Per cent
1.	Low level (Below 8.11 score)	14	18.66
2.	Medium level (8.11 to 16.17 score)	**49**	**65.33**
3.	High level (Above 16.17 score)	12	16
	Total	75	100.00

Fig.27. Distribution of the poultry entrepreneurs according to their knowledge regarding poultry management practices in Ajmer district.

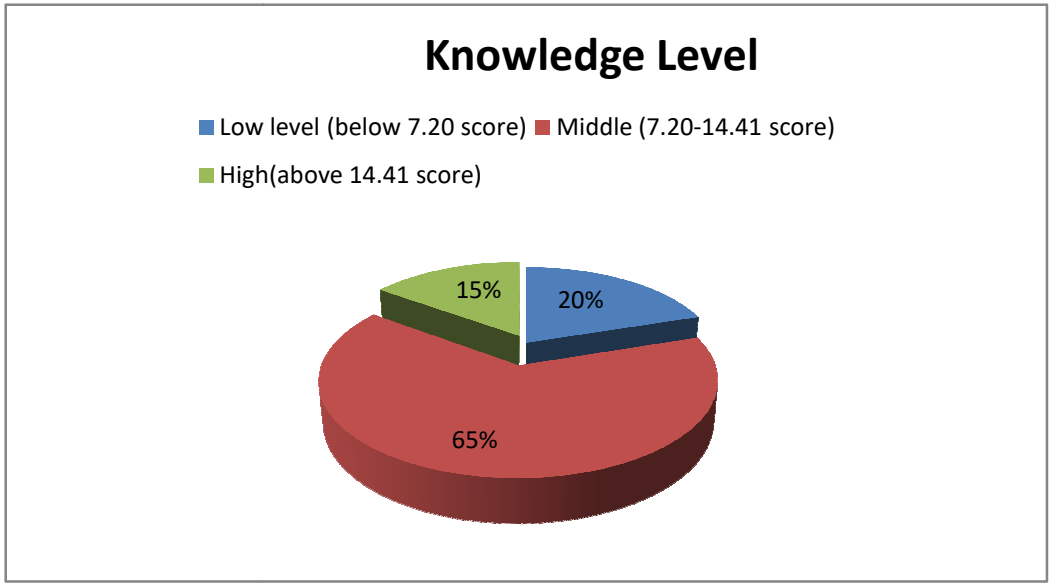
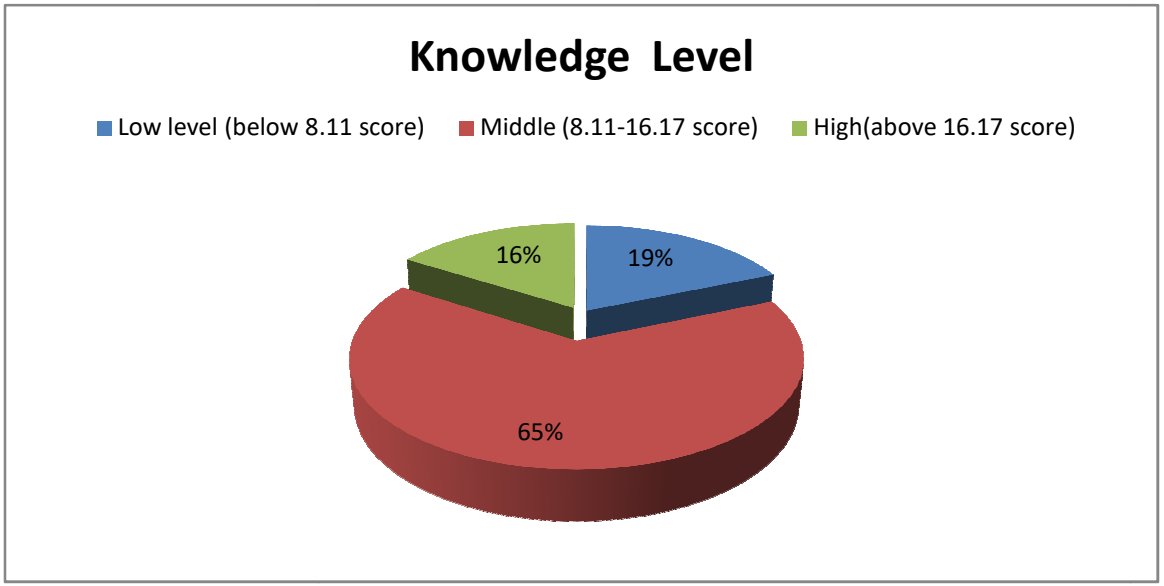


Fig. 28. Distribution of the poultry entrepreneurs according to their knowledge regarding poultry management practices in Jhunjhunu district.



The data portrayed in Table - 17 (a) and 17 (b) clearly reveals that majority (65.00 per cent and 65.33 per cent) of the poultry entrepreneurs had medium level of knowledge followed by 20.00 per cent and 18.66 per cent of the respondent, in category of low knowledge level and 15.00 per cent and 16.00 per cent of respondent has high level of knowledge in both Ajmer and Jhunjhunu district, respectively.

Similar results were obtained by Amudha and Veerabhadraiah (2000) and Thorat (2005).

4.4 RELATIONSHIP BETWEEN THE SELECTED CHARACTERISTICS OF THE POULTRY ENTREPRENEURS AND THEIR KNOWLEDGE ABOUT POULTRY MANAGEMENT PRACTICES

Management practices are a composite factor involving several components. Among them Knowledge regarding poultry management practices, attitude towards poultry management practices, ability in planning, ability to make rational decisions, ability to mobilize resources, ability to coordinate activities, timely adoption, efficient use of resources, competence in evaluation and ability in rational marketing are important.

The coefficient of correlation of each of the personal, socio-economic and psychological variables with the poultry entrepreneurs and their knowledge about poultry management practices are shown in Table - 18.

Table -18: Relationship between independent variables of the poultry entrepreneurs and their knowledge regarding poultry management practices.

n=175

Sr. No.	Independent variables	Coefficient of correlation (Ajmer) ('r' value)		Coefficient of correlation (Jhunjhunu) ('r' value)	
1	Age	-0.038	NS	-0.255	*
2	Education	0.689	**	0.740	**
3	Poultry farming experience	0. 349	**	0.295	**
4	Organizational participation	0.431	**	0.130	NS
5	Exposure to mass media	0.190	*	0.328	**
6	Contact with extension agency	0.009	NS	0.398	*
7	Occupation	0.512	**	0.313	**
8	Size of the poultry farm	0.396	*	0.165	NS
9	Annual income	0.194	*	0.187	*
10	Scientific orientation	0.259	**	0.362	**
11	Risk orientation	0.188	*	0.575	**
12	Adoption	0.480	**	0.470	**

* Significant at 0.05 level of probability.
** Significant at 0.01 level of probability.
NS – Non Significant.

4.4.1 Age and Knowledge

Correlation between age of the poultry entrepreneur and their knowledge level regarding poultry management practices was found to negative and non-significant (r= -0.038) for respondents of Ajmer district and was negative and significant (r= -0.255) for respondents of Jhunjhunu district (Table - 18). The result reveals that age is an important variable which influence the knowledge regarding poultry management practices. In other words, young poultry entrepreneurs were observed superior in planning, organizing, directing, communicating, leading, supervising, controlling and decision making than old aged poultry entrepreneurs.

The young poultry entrepreneurs due to their high level of enthusiasm to prove themselves as an important one of poultry enterprise might have taken keen interest in performing diversified activities of poultry farming than old aged poultry entrepreneurs. It is natural that the young persons are physically more powerful, active and are able to use modern equipment and facilitates of communication like computer, internet and e-mail, prompt, conscious in using power, able to control difficult situations and interested in doing work in spite of risk involved than old aged person.

Hence, the null hypothesis (H1) that “there is no relationship between age of the poultry entrepreneurs and their knowledge level of poultry management practices” is rejected.

This finding is in conformity with the findings of Patel *et al.* (2002) and Patel (2006).

4.4.2 Education and Knowledge

Knowledge level of the poultry entrepreneurs had positive and highly significant correlation (r=0.689 and r= 0.740) with their level of education for the respondents of both Ajmer and Jhunjhunu districts, respectively (Table - 18). This indicates that education is an important variable which influences the knowledge regarding poultry management practices of the poultry entrepreneurs. It also indicates that as the educational level of the respondent increased, knowledge level also increased.

Farmers having higher education with inquisitive mind harvest the rich fruit of research resulted in rational pragmatic decision making. Further, the level of education helped the farmers in gaining more knowledge about the affairs that go around him which motivates them to take advantage of such things for their development including their profession. In addition, these higher educated respondents might have utilized their resources effectively, to acquire information for better management. Higher education opens the world of thoughts leading towards positive thinking, better planning and proper execution of thoughts. Education provides a constant reorientation to the people and give chance to understand science and innovation to become a better entrepreneur and manager of the enterprise. Thus, the respondents with higher education have higher management efficiency which might be the probable reason for significant relationship.

Therefore, the null hypothesis (H1) that “There is no relationship between education of the poultry entrepreneurs and their knowledge" is rejected.

This finding is further strengthened by the result reported by Nimije *et al*. (1993), Nimbalkar (1998) and Patel (2005).

4.4.3 Poultry farming experience and Knowledge

Poultry farming experience of the poultry entrepreneurs was found to be positively and highly significantly correlated (r = 0.349 and r= 0.295) with knowledge in poultry production in both Ajmer and Jhunjhunu district, respectively (Table - 18). It shows that poultry farming experience is an important variable which influence knowledge level.

The probable reason may be that the increased experience of an individual would help to minimize production costs besides increased poultry production, which are pre-requisites for achieving higher profit. Secondly the increased experience in the poultry farming helps the poultry entrepreneurs to attain accuracy and efficiency of performing planning, decision making, utilization of resources, coordination of activities evaluation and marketing, which are important components of management efficiency. The longer experience gives chance to an individual to correct mistakes by the way of trial and error and helps in learning managerial abilities.

Hence, the null hypothesis (H1) stating “There is no relationship between poultry farming experience of the poultry entrepreneurs and their knowledge level” is rejected.

The finding is similar to the findings of Nimije *et al*. (1993), Nimbalkar (1998) and Patel (2005).

4.4.4 Organizational participation and knowledge

Organizational participation had positive and highly significant (r = 0.431) relationship with knowledge level of poultry entrepreneurs in Ajmer district. However, in Jhunjhunu district the organizational participation had positive but non-significant (r = 0.130) relationship with knowledge level of poultry entrepreneurs (Table - 18).

Positive correlation might be due to the fact that poultry entrepreneur who had high organizational participation would definitely get more knowledge in poultry management practices. As organizational participation of poultry entrepreneur increases, their knowledge level also increases.

Hence, the null hypothesis (H1) stating “There is no relationship between Organizational participation of the poultry entrepreneurs and their knowledge level” is rejected.

4.4.5 Exposure to mass media and Knowledge

Exposure to mass media had significant and positive (r = 0.190 and r = 0.328) relationship with knowledge level of the poultry management practices in Ajmer and Jhunjhunu district, respectively (Table - 18). It meant that exposure to mass

media is an important variable which play crucial role in improving their level of knowledge about new poultry management practices.

Exposure to mass media develops modern orientation among poultry entrepreneur, make them more efficient in acquiring, retaining and evaluating the effective components of management efficiency. Mass media also provides enormous opportunity for repeated exposure to new technologies, motivating poultry owners to reacquire and take positive steps relevant for poultry owners might be the possible explanation for this type of results.

Hence, the null hypothesis (H1) that “there is no relationship between contact with extension agency of the poultry entrepreneurs and their knowledge level” is rejected.

The findings of Singh and Nande (2002) and Patel (2005) are in agreement with the present findings of relationship between exposure to mass media and knowledge level about poultry management practices.

4.4.6 Contact with extension agency and knowledge

Correlation between contact with extension agency of poultry entrepreneurs and their knowledge level of the poultry management practices was found to be positive and non-significant (r = 0.009) in Ajmer district. Whereas, for respondents of Jhunjhunu district positive and significant (r = 0.398) correlation was found between contact with extension agency and

their knowledge level of the poultry management practices. This means that extension contact is a crucial variable which play an important role to influence the knowledge level of the poultry entrepreneurs.

The probable reason might be that contact with extension agency helped the poultry entrepreneurs for getting scientific information and technology and secured proper guidance which might have cleared their doubts and increased their knowledge level.

Hence, the null hypothesis (H1) that “There is no relationship between contact with extension agency of the poultry owners and their knowledge level” is rejected**.**

This finding is strengthened by the result reported by Patel (2005).

4.4.7 Occupation and Knowledge

Results indicate that occupation had positive and highly significant (r = 0.512 and r = 0.313) relationship with knowledge level about poultry management practices of the poultry entrepreneurs (Table - 18).

This may be due to the reason that the person who is in occupation might be more educated and has more exposure to changes in society regarding poultry farming, which influence his knowledge level.

Hence, the null hypothesis (H1) stating that “There is no relationship between occupation of the poultry entrepreneurs and their knowledge level” is rejected.

Similar finding was reported by Sai (2002).

4.4.8 Size of the poultry farm and Knowledge

It is evident from Table - 18 that size of the poultry farm had positive correlation (r = 0.396 and r = 0.165) with knowledge level of the poultry entrepreneurs about poultry management practices in both Ajmer and Jhunjhunu district. It meant that size of the poultry farm is an important variable which play crucial role in improving their level of knowledge.

The big size of the farm means a better economic condition of an individual, which gives chance to take risk and capacity to test, experience and apply new innovation liberally. In addition to this, due to better mass media exposure, they learn modern methods to manage their farm effectively. This might be the probable reason to have better management efficiency among those poultry entrepreneurs, who had big size of poultry farm and therefore positive relationship observed between sizes of the poultry farm and their management efficiency and increase knowledge level.

Hence, the null hypothesis (H1) stating “There is no relationship between sizes of the poultry farm of the poultry entrepreneurs and their knowledge level” is rejected.

Similar finding was reported by Patel (2006).

4.4.9 Annual income and Knowledge

It is evident from Table - 18 that annual income of the poultry entrepreneurs was found positively and significantly correlated (r = 0.194 and 0.187) with knowledge level of the poultry entrepreneurs about poultry management practices in both Ajmer and Jhunjhunu district, respectively. This reflects that annual income did play an role in increasing or decreasing the knowledge level about poultry management practices.

Hence, the null hypothesis (H1) in case of annual income and knowledge level of the poultry entrepreneurs is rejected.

Similar finding was reported by Nimjie *et al*. (1992).

4.4.10 scientific orientation and Knowledge

Scientific orientation of the poultry owners had positive and highly significant correlation (r = 0.259 and r = 0.362) with their knowledge level about poultry management practices, in both Ajmer and Jhunjhunu districts, respectively. It indicates that scientific orientation is an important variable for increased knowledge level in poultry production technology.

Hence, the null hypothesis (H1) in case of scientific orientation and knowledge level of the poultry entrepreneurs is rejected.

The probable reason might be that scientific orientation opened the mental horizon which acted as a catalyst in changing behaviour of the poultry entrepreneurs, which would have resulted into its significant influence on knowledge level. The another probable reason might be that poultry entrepreneurs with scientific orientation could be more interested to the latest technologies, employ scientific methods in making the decisions as well as acquire and adopt efficient components of management of poultry production technology.

The findings of Patel (2005) support the finding of this study.

4.4.11 Risk orientation and Knowledge

Correlation between risk orientation of the poultry entrepreneurs and their knowledge level about poultry management practices was found positive and significant (r = 0.188) for Ajmer district and positive and highly significant (r = 0.575) for Jhunjhunu district.

Hence, the null hypothesis (H1) in case of risk orientation of the poultry entrepreneurs was rejected and it can be concluded that there was significant relationship between risk orientation of the poultry entrepreneurs and their knowledge level.

The probable reason might be that, the poultry entrepreneurs with higher level of risk orientation would be much ahead of others in exploiting the potentialities of poultry production technology. Such individuals would possess more entrepreneurial characteristics like innovativeness, achievement motivation, scientific orientation etc. These individuals will be very much critical and cautious in understanding different aspects of a technology which directly or indirectly might have helped them to acquire different components essential for better management of poultry production technology.

This finding is further strengthened by the results reported by Nimbalkar (1998) and Patel *et al.* (2002).

4.4.12 Adoption and Knowledge

Adoption of the poultry entrepreneurs had positive and highly significant correlation (r = 0.480 and r = 0.470) with their knowledge level about poultry management practices of the poultry entrepreneurs in poultry production technology for both Ajmer and Jhunjhunu district, respectively.

This might be due to the fact that poultry entrepreneurs who are having better knowledge about poultry management practices are efficient in selecting economical and feasible technology and adopt the same very quickly. Hence, the null hypothesis (H1) in case of extent of adoption of poultry management practices and knowledge level of the poultry entrepreneurs is rejected.

This finding is further strengthened by the results reported by Tripathi and Gautam (2003) and Joshi (2004).

4.5 CONSTRAINTS FACED BY THE POULTRY ENTREPRENEURS REGARDING POULTRY MANAGEMENT PRACTICES

The poultry entrepreneurs were observed to have some constraints with respect to availability of birds and personal, situational, economic, marketing and management aspects of poultry enterprise. The poultry entrepreneurs were requested to express the nature and extent of constraints faced by them. These constraints categorized according to their frequency and percentage and are presented in Table - 19.

A) Constraints regarding availability of birds

About 65.00 per cent of the poultry entrepreneurs in Ajmer district and 69.88 per cent in Jhunjhunu district faced the constraints regarding the high death rate of poultry birds, while a small proportion (20.00 per cent) of the respondents in Ajmer and 48.00 per cent respondents in Jhunjhunu district pointed the constraints of non-availability of birds in time.

B) Personal constraints

15.00 per cent and and 26.66 per cent of the poultry entrepreneurs faced constraints regarding inability to pay constant attention in both Ajmer and Jhunjhunu districts, respectively. Religious constraints did not affected the poultry entrepreneurs of both the districts. Lack of supports from the family members was considered as constraints by 8.00 per cent and 54.66 per cent of respondent from Ajmer and Jhunjhunu districts, respectively.

C) Situational constraints

Majority (78.00 per cent and 84.00 per cent) of the poultry entrepreneurs of Ajmer and Jhunjhunu district, respectively, expressed the constraints regarding risk and uncertainty of poultry business and highly fluctuate market. None of the respondents faced constraints in electricity and water crises in poultry enterprise .

D) Economic constraints

Great majority (83.00 per cent and 85.33) of the poultry entrepreneurs of both the districts expressed the constraints regarding price of feed because global meltdown and increase commodity products and globally crude price rate are high. 58.00 per cent and 49.77 per cent of the respondents expressed the constraints regarding difficulty in getting loan. High rate of interest on loan was constraint for 76.00 and 62.66 per cent of respondents of Ajmer and Jhunjhunu districts, respectively. Majority (70.00 per cent and 76 per cent) of the respondents expressed the constraints towards high price of medicine. However, large proportion (62.00 per cent and 72.00 per cent) of the respondents expressed about lack of finance in poultry sector and about 43.00 per cent and 52.00 per cent of respondents said that birds were costly. 10.00 per cent and 50.66 per cent of the poultry entrepreneurs expressed the constraints regarding high charge of electricity from both Ajmer and Jhunjhunu districts, respectively.

E) Marketing constraints

In both Ajmer and Jhunjhunu district almost all (85.00 per cent and 89.33 per cent) the poultry entrepreneurs expressed the constraints regarding low egg price during summer season, whereas 21.00 per cent and 49.33 per cent of the respondents expressed the constraints towards low wholesale price of broiler. Some (11.00 per cent and 20.00 per cent) of the respondents expressed the constraints regarding irregular payment of sale of eggs, respectively.

F) Management constraints

About 70.00 per cent and 42.66 per cent of the respondents pointed out the constraints regarding non-availability of prompt veterinary aids from Ajmer and Jhunjhunu districts, respectively. Inferior quality of feed received from feed agencies and non-availability of laborers for poultry enterprise were constraints for equal percentage (22.00 per cent) of respondents from Ajmer district, whereas for respondents from Jhunjhunu district the percentage regarding above constraint was 34.66 and 72.00 per cent, respectively. 78.00 per cent of the poultry entrepreneurs from Ajmer and 57.33 per cent from Jhunjhunu district reported the constraints regarding losses due to change in environmental conditions because respondents faced global warming effect.

The findings of the study are close in agreement with the findings reported by Nimbalkar (1998), Amudha and Veerabhadraiah (2000), Mayekar *et al.* (2001) and Thorat (2005).

Table - 19: Distribution of the poultry entrepreneurs in Ajmer and Jhunjhunu district by their constraints faced in poultry management

n=175

Sr. No.	Constrains	Ajmer		Jhunjhunu	
		Frequency	Per cent	Frequency	Per cent
A.	**Availability of birds**				
1	Non-availability of improved birds in time	20	20	36	48.00
2	Death rate of birds is high	65	65	52	69.88
B	**Personal constrains**				
1	Inability to pay constant attention	15	15	20	26.66
2	Religious constraints	00	00	00	00.00
3	Lack of supports from family members	08	08	41	54.66
C	**Situational constrains**				
1	Risk and uncertainty	78	78	63	84.00
2	Difficulty in getting electric supply	00	00	00	00.00
3	Difficulty for water	00	00	00	00.00
D	**Economic constraints**				
1	Lack of finance	62	62	54	72.00
2	Difficulty in getting loan	58	58	37	49.77
3	High cost of feed	83	83	64	85.33
4	High price of medicine	70	70	57	76.00
5	High charge of electricity	10	10	38	50.66
6	High rate of interest on loans	76	76	47	62.66

7	Birds are costly	43	43	39	52.00
E	**Marketing constrains**				
1	Low egg price during summer	85	85	67	89.33
2	Irregular payment of sale of eggs	11	11	15	20.00
3	Wholesale price of broiler is low	21	21	37	49.33
F	**Management constraints**				
1	Inferior quality of feed received from feed agencies	22	22	26	34.66
2	Non-availability of prompt veterinary aids	70	70	32	42.66
3	Non-availability of laborers for poultry enterprise	22	22	54	72.00
5	Losses due to change in environmental conditions.	78	78	43	57.33

4.6 SUGGESTIONS OF POULTRY ENTREPRENEURS TO OVERCOME THE CONSTRAINTS IN THE POULTRY MANAGEMENT

The information also collected regarding the suggestions given by the poultry entrepreneurs to overcome the constraints faced by them. The important suggestions are presented in the Table - 20.

Table - 20: Suggestions given by the poultry entrepreneurs to overcome constraints in poultry management in Ajmer and Jhunjhunu district

n=175

Sr. No.	Suggestions	Ajmer		Jhunjhunu	
		Number	Per cent	Number	Per cent
1	Easily, timely availability of feed with reasonable price	86	86	61	81.33
2	Mobile Van Lab Diagnostic for Post Mortem and More research Poultry Feed.	95	95	70	93.33
3	Egg and Meat price should be fixed through government agencies or association	75	75	60	80.00
4	Long term credit facilities should be provided.	99	99	69	92
5	Effective marketing facility should be made for reasonable returns of poultry products and made poultry sector SEZ.	77	77	62	82.66

The data presented in Table - 20 reveals that a great majority (95.00 per cent and 93.33 per cent) of the respondents had suggested the mobile van for lab diagnostics at farm level just like 108 services for human healthcare service and more research in poultry feed i.e. to decrease feed conversation ratio, increase chicks immunity. Whereas, 86.00 per cent and 81.33 per cent of the respondents suggested easily, timely availability of feed with reasonable price as an solution to constraints faced by them. 99.00 per cent and 92.00 per cent of the respondents suggested that long term credit facility should be provided followed by 77.00 per cent and 82.66 per cent of the respondents who suggested that effective marketing facility should be made available for poultry entrepreneurs. Fixing of egg and meat price through government

agencies or association was suggested by 75.00 per cent and 80.00 per cent of respondents from Ajmer and Jhunjhunu districts, respectively.

The result was in conformity with the findings of Patel (1999).

4.7 EMPERICAL MODEL

Conceptual model based on the assumption that the knowledge levels of the poultry entrepreneurs were influenced by various characteristics of individual is presented by in Fig-. Out of twelve variables of the respondents eleven variables such as, education, experience of poultry, Organisational participation, occupation, annual income, mass media exposure, extension contact, size of poultry farm, scientific orientation , risk orientation and adoption were positively and significantly related with knowledge level of poultry entrepreneurs about poultry management practices. However, age is negatively correlated with knowledge level of poultry entrepreneurs about poultry management practices.

INDEPENDENT VARIABLES

LEGEND

- Age
- **Education**
- **Experience in poultry**
- **Organizational participation**
- **Mass media exposure**
- **Extension contact**
- **Occupation**
- **Size of poultry farm**
- **Annual income**
- **Scientific orientation**
- **Risk orientation**
- **Adoption**

Cause → Effect

(Significant Relationship)

Cause→ Effect

(Non –significant relationship)

DEPENDENT VARIABLES

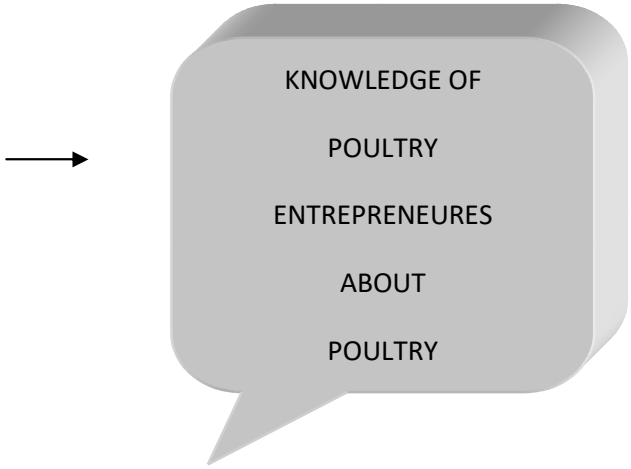


Fig. 29. THE EMPERICAL MODEL OF KNOWLEDGE OF POULTRY ENTREPRENEURS ABOUT POULTRY MANAGMENT PRACTICES

CHAPTER- V

SUMMARY AND CONCLUSIONS

This Chapter deals with brief description of investigations along with summary, major findings, conclusions and suggestions for future action.

5.1 SUMMARY

Poultry farming is an age old business in India, modern poultry breeding started in 1970 and large scale integrators have become prominent in last decade. The domestic poultry market is estimated at more than Rs .47,000 crore and the growth trend is likely to continue for the present decade as demand has been growing steadily on back of favourable economic factor like healthy GDP (Gross Domestic Products), rising purchasing power, changing food habits and increase urbanization. It also play an important role in improving economy of the poultry entrepreneurs.

Twenty first century is the century of entrepreneurship and every individual can be an agent for innovation and change. Entrepreneurship is regarded as one of the most crucial factors in the economic development of every region of the country. It widens the horizons of economic development even in the socially and industrially backward regions. Dynamic entrepreneurs are considered to be the agent of change in a society. Entrepreneurs play a very important role in generating new employment and setting up new business.

Looking to the above facts, the present investigation “A STUDY OF POULTRY ENTREPRENEURS IN AJMER AND JHUNJHUNU DISTRICT OF RAJASTHAN’’ was decided to be undertaken.

5.2 OBEJECTIVES OF THE STUDY

The present study was conceived with general objective of measuring the management efficiency of the poultry owners of Ajmer and Jhunjhunu district of Rajasthan state. The specific objectives of the study were as under.

5.2.1. Profile of the poultry entrepreneurs.

5.2.2. Extent of adoption of the poultry entrepreneurs about poultry management practice.

5.2.3. Knowledge level of the poultry entrepreneurs about poultry management practice.

5.2.4. Relationship between the profile of the poultry entrepreneurs and their level of knowledge about poultry management practices.

5.2.5. Constraints faced by the poultry entrepreneurs in poultry management.

5.2.6. Suggestion to overcome the constraints faced by the poultry entrepreneurs in poultry management.

5.2.7. Empirical model

5.3. HYPOTHESIS OF THE STUDY

On the basis of the objectives of the study, the following null hypothesis was formulated.

H1: There is no relationship between selected personal, socio-economic, communicational and psychological characteristics of the poultry entrepreneurs and their knowledge level about poultry management practices.

5.4. REVIEW OF LITERATURE

Available literature having direct and indirect effect on the study was added in review of literature and with the suggestion of experts, the variable to be studied were selected.

5.5. METHODOLOGY

The methodological procedure consisted of determination of dependent (knowledge) and independent (selected characteristics of the poultry entrepreneurs) variables, selection of poultry entrepreneurs, analysis of the data and various statistical measures such as percentage, mean score, standard deviation, ranking and coefficient correlation.

In order to measures knowledge about poultry management practices, the knowledge scale developed. For measuring the selected independent variables some scheduled were developed and some scales developed by other researchers with some modification were used.

According to the information available total organized poultry farms in Ajmer and Jhunjhunu districts are 173 and 88, respectively. Out of which 100 poultry entrepreneur were selected from Ajmer district and 75 from Jhunjhunu district. The data were collected with the help of interview scheduled by conducting personal interview. The data so collected were coded, classified, tabulated and analyzed in order to make the finding meaningful.

5.6. MAJOR FINDINGS AND CONCLUSIONS

The important findings of the study are summarized as under.

5.6.1 PROFILE OF THE POULTRY ENTREPRENEURS

5.6.1.1 Age

More than half (60.00 per cent and 50.00 per cent) of the poultry entrepreneurs in Jhunjhunu and Ajmer district, respectively, belonged to middle age group.

5.6.1.2 Education

Majority (60.00 per cent) of the poultry entrepreneurs in Ajmer district had upto 8th std. of school level education. Whereas, in Jhunjhunu district about 64.00 per cent of respondents had school level education upto 10th std.

5.6.1.3 Experience

In Ajmer district 35.00 per cent of the poultry entrepreneurs were having 10.1 to 15 years of experience in poultry farming, whereas, 58.66 per cent of the poultry entrepreneurs in Jhunjhunu district were having experience in poultry from 5.1 to 10 years.

5.6.1.4 Training received

All (100.00 per cent) of the poultry entrepreneurs have received training in poultry, in both Ajmer and Jhunjhunu district.

5.6.1.5 Caste/ Community

Majority (60.00 per cent) of the poultry entrepreneurs were observed to be from Muslim communities in Ajmer. Whereas, contrary to this Great majorities (89.33) of respondents were Hindu in Jhunjhunu district

5.6.1.6 Organizational participation

More than half (71.00 per cent and 64.00 per cent) of the poultry entrepreneurs had medium level of organizational participation in both Ajmer and Jhunjhunu districts, respectively.

5.6.1.7 Mass media exposure

Majority (66.00 per cent and 86.66 per cent) of the poultry entrepreneurs in Ajmer and Jhunjhunu districts, respectively had medium level of mass media exposure.

5.6.1.8 Extension contact

Majority (53.00 per cent and 74.66 per cent) of the poultry entrepreneurs had medium level of extension contact in Ajmer and Jhunjhunu districts, respectively.

5.6.1.9 Occupation

In Ajmer and Jhunjhunu districts Majority (64.00 per cent and 69.33 per cent) of the poultry entrepreneurs had integrated farming as their main occupation, respectively.

5.6.1.10 Size of the poultry farm

Majority (69.00 per cent and 64.00 per cent) of the poultry entrepreneurs were having up to 6000 poultry birds, in Ajmer and Jhunjhunu districts, respectively.

5.6.1.11 Annual income

Near about half (46.00 per cent and 50.67 per cent) of the poultry entrepreneurs had annual income up to Rs 1.5 lakh to 3.0 lakh in both Ajmer and Jhunjhunu districts, respectively.

5.6.1.12 scientific orientation

In Ajmer and Jhunjhunu districts Majority (63.00 per cent and 61.33 per cent) of the poultry entrepreneurs had medium level of scientific orientation, respectively.

5.6.1.13 Risk orientation

Majority (59.00 per cent and 49.33 per cent) of the poultry entrepreneurs had medium level of risk orientation in Ajmer and Jhunjhunu districts, respectively.

5.6.1.14 Level of adoption of poultry management practices of the poultry entrepreneurs.

In Ajmer and Jhunjhunu districts Majority (66.00 per cent and 72.00 per cent) of the poultry entrepreneurs had medium level adoption of poultry management practices, respectively.

5.6.1.15 Knowledge level of poultry entrepreneurs.

Majority (65.00 per cent and 65.33 per cent) of the poultry entrepreneurs had medium level of knowledge about poultry management practices in both Ajmer and Jhunjhunu districts, respectively.

5.6.2 Relationship between the profile of the poultry entrepreneurs and their knowledge about poultry management practices.

The characteristics namely education, experience in poultry, mass media exposures, occupation, annual income, extension contact, size of poultry farm, scientific orientation, risk orientation and adoption level of poultry management practices were positively and significantly correlated with knowledge, whereas, age had negative correlation with the knowledge level of the poultry entrepreneurs about poultry management practices in both Ajmer and Jhunjhunu districts. The variables like organizational participation and size of poultry farm were positively and significantly correlated with knowledge about poultry management practices in Ajmer district, while in Jhunjhunu district it was positively and non-significantly correlated with knowledge about poultry management practices. Contact with extension agency had positive and significant correlation with knowledge about poultry management practices in Jhunjhunu district but the effect of correlation was non – significant in case of Ajmer district.

5.6.3 Constraints faced by the poultry entrepreneurs in poultry management practices.

The constraints mostly faced by the poultry entrepreneurs were low egg price during summer (85.00 per cent and 89.33 per cent), high cost of feed (83.00 per cent and 85.33 per cent), risk and uncertainty (78.00 per cent and 84.00 per cent), losses due to change in environmental conditions (78.00 per cent and 57.33 per cent), high rate of interest on loans (76.00 per cent and 62.66 per cent), high price of medicine (70.00 per cent and 76.00 per cent), non-availability of prompt veterinary aids (70.00 per cent and 42.66 per cent), death rate of birds is high (65.00 per cent and 69.88 per cent), lack of finance (62.00 per cent and 72.00 per cent), difficulty in getting loan (58.00 per cent and 49.77 per cent), chicks are costly (43.00 per cent and 52.00 per cent), wholesale price of broiler is low (21.00 per cent and 49.33 per cent), inferior quality of feed received from feed agencies (22.00 per cent and 34.66 per cent), non-availability of laborers for poultry enterprise (22.00 per cent 72.00 per cent), non-availability of improved birds in time (20.00 per cent and 48.00 per cent), inability to pay constant attention (15.00 per cent and 26.66 per cent), high charge of electricity (10.00 per cent and 50.66 per cent), irregular payment of sale of eggs (11.00 per cent and 20.00 per cent), lack of supports from family members (8.00 per cent and 54.66 per cent) in poultry enterprise in both Ajmer and Jhunjhunu districts, respectively.

5.6.4 Suggestions to overcome the constraints faced by the poultry entrepreneurs in poultry management.

Majority (95.00 per cent and 93.33 per cent) of poultry entrepreneurs in Ajmer and Jhunjhunu district suggested mobile diagnostic lab for treatment and post mortem examination and more research in poultry feed sector. Ninty nine per cent in Ajmer and 92.00 per cent poultry entrepreneurs in Jhunjhunu district suggested that long term credit facilities should be provided, whereas 86.00 per cent and 81.33 per cent respondents from both Ajmer and Jhunjhunu districts respectively,

suggested for easily, timely availability of feed with reasonable price and majority (77.00 per cent and 82.66 per cent) of poultry entrepreneurs from both Ajmer and Jhunjhunu districts respectively, suggested that effective marketing facility should be made for reasonable returns of poultry products and making poultry sector SEZ (Special Economic Zone). Seventy five per cent and 80.00 per cent of poultry entrepreneurs in both the districts, suggested that egg and meat price should be fixed through government agencies or associations.

5.7 IMPLICATIONS

1. Policy Implications

Although the present study was confined to some selected poultry entrepreneurs, it may be appropriate to state briefly the policy implications arising from the findings of the study. In this context, the following policy actions may be considered worthwhile.

2. Arrangement of Training Facilities

Training to entrepreneurs has become an essential factor at this moment. For better assessment of training needs, training of entrepreneurs is most essential. Further, local resources, technology and existing stock of problems may be considered in designing training courses for entrepreneurs like poultry farmers. In this context, educational institutions, professional bodies can also cooperate and collaborate.

3. Curricula of Educational Institutions

Courses on entrepreneurship may be introduced in the curricula of Secondary and Higher Secondary Education in India (Rajasthan State) so that school/college drop outs are exposed to possibilities of independent economic status. Further, the youngsters, on completion of school/ college education may emerge as a job- creator instead of job seekers. In

Rajasthan State, profitable investment avenues are available in various fields like poultry farming involving simple technology, small capital and low gestation period.

4. Availability of Credit Facilities

Adequate institutional credit facilities should be available to poultry entrepreneurs so that they do not fall prey to money lenders. Further, red-tapism of the bank officials needs to be simplified, so that prospective entrepreneurs can avail themselves of credit facilities offered by concerned agencies.

5. Motivation to Research on Entrepreneurship

Government and other funding agencies like DFRD, IDRC, CIDA, USAID, NABARD etc. and others may motivate research works by concerned parties on relevant aspects of entrepreneurship development which, in turn, may lead to solve the problems of entrepreneurship development of the country.

6. Integrated Package Assistance

Integrated package assistance, viz., stimulatory, supportive and sustaining services may be offered by the governmental and promotional agencies to the entrepreneurs in order to develop entrepreneurship in study areas. For this purpose, clear-cut policy decisions may be advocated.

5.8 SUGGESTIONS FOR FUTURE RESERCH

In the light of findings of the present study and experience gained during the course of investigation, some areas have emerged for future research as under.

1. Similar investigation may be conducted in other areas of districts and state having poultry farms, so result of this can be strengthened.
2. Similar investigation may be conducted on other animal husbandry i.e. dairy farming, goat rearing, piggery farming.
3. Such type of studies may be conducted with more variables and more objectives, which are not included in this study.
4. Case studies of most successful or unsuccessful poultry entrepreneurs can also be studied.
5. A study regarding effectiveness and impact of intensive poultry development projects should be undertaken.
6. A detail study is required to know the role of poultry association in poultry development.

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Place: Bikaner

Date: / / 2016 **Arun Kumar Jhirwal**

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Table No.	Title	Page No.

INTERVIEW SCHEDULE

A STUDY OF POULTRY ENTREPRENEURS IN AJMER and JHUNJHUNU DISTRICT

1. Interview Schedule No Date:-

2. Name of Poultry Farm. Tehsil :-

3. Name of Poultry Entrepreneurs:-

PART -I

Personal, Social, Economical, Communicational and Psychological Characteristics of Poultry Entrepreneurs

Tick mark ( ) wherever applicable

1. Age :

2. Education:

   a) Illiterate

   b) Can read and write

   c) 1^{St} to 7^{th} Std.

   d) 8^{th} to 10^{th} Std.

   e) 11^{th} to 12^{th} Std.

   f) College and above

3. Experience in poultry enterprise:_____Years

4. Training received

5. Community :

6 .Organizational participation:

Please furnish information regarding your position in following organization.

Sr.No	Organization.	Member	Position Held
1.	Panchyat.		
2.	Poultry organization.		
3.	Youth Club.		
4.	Cooperative Society.		
5.	Any other.		

7. Mass media exposure:

Please indicate the frequency of your use of following mass media.

Sr.No	Media	Regularly	Occasionally	Never
1.	Newspapers			
2.	Poultry Literature			
3.	Radio			
4.	Television			
5.	Exhibition			
6.	Demonstration			
7.	Digital Media.			

8. Extension contact:

Sr.No	Extension contact score	W 5	FN 4	M 3	HY 2	Y 1
1.	Gram Sevak (VLW)					
2.	Extension officer					
3.	Subject matter specialists					
4.	Poultry Consultant.					
5.	Poultry training centre					
6.	Veterinary college					
7.	Farmer training centre					
8.	Krishi Vighyan Kendra					
9.	Non Government Organization					

W= Weekly, FN=Forth nightly, M= Monthly, HY= Half yearly, Y= Yearly

9. Occupation:

a) Only Poultry

b) Poultry+Farming

c) Poultry+Service

d) Poultry+ Farming+Service

10. Size of the poultry farm-

11. Annual Income: _____Rs

12. Scientific orientation:

The following are some statements representing scientific orientation of poultry entrepreneurs .State the degree of your agreement by putting tick mark (√) against each of them one five point scale.

Sr.No	Statements	SA	A	UD	D	SD
1.	New methods of poultry farming given better result to a poultry entrepreneur than old method.					
2.	A Poultry entrepreneur with lots of experience should use new methods of poultry farming.					
3.	Traditional method of poultry farming to be changed in order to raise the level of living of a poultry entrepreneur.					
4.	Though it takes time for poultry entrepreneurs to learn new method and poultry farming it is worth the effort.					

5.	A good poultry entrepreneur experiments with new ideas in poultry farming.					

SA=StronglyAgree,A=Agree,UD=Undecided,D=Disagree,SD=Strongly Disagree.

13. Risk orientation:

The following are some statements representing risk orientation of poultry entrepreneurs .State the degree of your agreement by putting tick mark (√) against each of them one five point scale.

Sr.No	Statements	SA	A	UD	D	SD
1.	A poultry entrepreneur should take chance to avoid risk adopting more numbers of birds.					
2.	It is good for poultry entrepreneur to take risk when he knows his chance of success is fairly high					
3.	Poultry entrepreneurs should follow poultry farming with farming					

	occupation to avoid greater risk.					
4.	A poultry entrepreneur who is willing to take greater risk than average poultry entrepreneurs usually does better.					
5.	Trying an entirely a new poultry farming method by a poultry entrepreneurs involves risk but it is worth.					

SA=StronglyAgree,A=Agree,UD=Undecided,D=Disagree,SD=Strongly Disagre

PART-II

Knowledge level of the poultry entrepreneurs regarding poultry management practices

Sr.No	Question	Correct/Incorrect
1.	How much is the average egg weight ?	
2.	Why debeaking is carried out in birds?	
3.	How many time debeaking is done in layer birds? 1.Once 2.Twice 3.Thrice 4.none	
4.	What is the feed consumption during 0-8 weeks period in layers or 0-6 weeks broiler? 1.) 1.5 kg 2.) 2.5 kg 3.) 4 kg 4.)40 kg	
5.	What is the feed consumption during 0-10 days period /0-20 weeks period? 1.)1.6 kg 2.)7.0 kg 3.)4 kg. 4.) 40 kg	
6.	What is the feed consumption during 21-72 weeks period? 1.)1.6 kg 2.)2.5 kg 3.) 4 kg 4.) 40 kg	
7.	Which materials are normally used as litter?	
8.	Can we house three layers in one cage? Yes/No	

9.	Important precautions for the prevention of diseases in poultry birds: 1. 2.	
10.	Which are the symptoms of Merck's disease? 1. 2.	
11.	What is the age of first vaccination against Merck's disease? 1.1 week 2.1 day 3.1 month 4.1 year	
12.	Which are the symptoms of Coccidiosis disease? 1. 2.	
13.	What is the age for vaccination against Fowl Pox disease? 1 5 week 2 7 week 3 8 week 4 4 week	

14.	Name of the coccidiostat used control the Coccidiosis	
15.	Give the crude protein and energy content of starter chick mash/Broiler pre-starter (BIS standard) Crude protein: % Energy: K.cal./kg of feed ME	
16.	Give the crude protein and energy content of starter chick mash/Broiler pre-starter (BIS standard) Crude protein: %	
17.	Give the crude protein and energy content of Layer mash/Broiler Finisher. (BIS standard) Crude protein: % Energy: K.cal./kg of feed ME	

18.	Mention sources of calcium used in poultry feed.	

PART: III

Adoption of the Poultry Entrepreneurs Regarding Management Practices of Poultry Enterprise

a) Improved Strain

1 Have you brought improved strain for egg/meat production? Yes/No

2 Do you bring one day old chicks from hatcheries? Yes/No

3 What should be the weight of day old chick?

4 When you bring the old chick?

1. Morning ( )

2.Evening ( )

b) Feed Management:

1. Please mention type of feed, which you are using?

a) Mashed ( )

b) Granular/Pellet ( )

c) Any other ( )

2. From where you are purchase poultry feed?

a) Readymade from private company ( )

b) Self prepared ( )

c) Any other ( )

3. One bird everyday consumes how much feed?

a) Less than 100 gm ( )

b) 100 to 120 gm ( )

c) More than 120 gm ( )

4. How many times are you giving feed poultry birds in a day?

a) Once in a day ( )

b) Twice in a day ( )

c) Thrice in a day ( )

5. Which equipment are you using for giving feed to poultry birds?

a) Linear Feeder ( )

b) Hanging Feeder ( )

6. How much feeder is filled up ?

a) Full ( )

b) Half ( )

c) 2/3 ( )

c) Water Management:

1. Do you give clean water, free from salt to your poultry birds? Yes/No

2. Do you provide continuous water to birds? Yes/No

3. Mention the watering equipment's used on the poultry farm. Yes/No

1. Pot method:

(1) Aluminum pot

(2) Galvanized pot

2. Water channel method:

(1) Automatic Drinker

(2) Manual Drinker

3. Nipple watering device:

d) Lighting:

1. Is additional light necessary for egg hens? Yes/No

2. How do you provide additional lighting ?

a). Electric bulb_____volt ( )

b). Electric tube_____volt ( )

c). Any Other

3. How many hours do you give additional lighting?

a).Morning_____hrs ( )

b).Evening_____hrs ( )

4. How many hours of lighting are necessary?

a). 1 day to 4 week chick_____hrs ( )

b). Laying hens_____hrs ( )

5. What should be the distance between light and the birds/floor?

a). 8 feet ( )

b).12 feet ( )

c). 10 feet ( )

6. What should be the distance between two bulbs?

a). 8 feet ( )

b).12 feet ( )

c). 10 feet ( )

e) Culling:

1. Do you remove non-productive hens? Yes

2. Please mention interval of culling non-productive hen._____

3. How do you decide the non-productive hen?

4. Why do you remove the cull birds?

5. At what age generally the hens are culled?

a) 65 weeks ( )

b) 72 weeks ( )

c) 85 weeks ( )

f) Health Care:

1. Do you follow regular checking for health of poultry birds? Yes/No

If yes, who makes checking?

a). Veterinary doctor ( )

b). Yourself ( )

c). Trained person for village ( )

d).Any other ( )

2. For preventing the birds from diseases have you injured your poultry birds with antibiotics? Yes/No

3. Do you keep cleanliness around your poultry farm? Yes/No

4. While replacing the old birds from farm, do you clean the walls, floor, litter and ventilation etc.? Yes/No

5. Have you provide any antibiotics to your poultry birds? Yes/No

6. If yes, give the name of antibiotics_____

7. How do you give antibiotics and other medicine?

a). Mixing with water ( )

b). Antibiotics+Medicine+Water ( )

c) Both ( )

g) Rearing System:

1. Which method do you follow for rearing poultry birds?

a). Cage System ( )

b). Deep litter System ( )

c). Batch System ( )

d). All in all out ( )

d). All in all out ( )

2. If you follow litter system, which litter does you like most? Yes/No

a). Everyday litter should be changed ( ) Yes/No

b). Height litter from ground floor ( ) Yes/No

c). Do you use same litter after replacing old birds after a year? Yes/No

3. If you follow cage system mention type and method of cage. Yes/No

h) Marketing:

Selling of eggs

1.Do you sell eggs after grading? Yes/No

2.How do you sell eggs?

a). To poultry co-operative society ( )

b). To private dealers ( )

c). Any other ( )

3.At what age the broilers are marked?

a). 5-6 weeks ( )

b). 8 weeks ( )

c). 12 weeks ( )

4.Do you sell fresh eggs?

5.How do you sell hens?

a).On weight ( )

b).Fix rare of bird ( )

i) Record keeping:

1.Do you mention any record for poultry farm? Yes/No

If yes, mention different types of records:

a).Daily eggs/birds production as well as body

b).Feed management registers

c).Income registers

d).Total expenditure register

e).Health calendar

j) Summer and winter management:

Summer management

1. Do you arrange for required cold water? Yes/No

2. Do you apply white washing of rooftop of poultry shed? Yes/No

3.Do you make arrangement for sprinkler around poultry farm? Yes/No

4 .Do you give highly proteins food? Yes/No

Winter management

5.Use of curtains on windows? Yes/No

6 .Cutting down chilled air? Yes/No

7. Use of bukhari to give heat? Yes/No

8. Use electric heater to give warmth? Yes/No

PART: IV

Following are some constraints faced by the poultry entrepreneurs.

Sr.No	Question	Yes	No
A.	**Availability of Birds**		
1.	Non-availability of improved birds in time		
2.	Death rate of birds are high		
B.	**Personal Constrains**		
1.	Inability to pay constant attention		
2.	Religious constraints		
3.	Lack of supports from family members		
C.	**Situational Constraints**		
1.	Risk and uncertainty		
2.	Difficulty in getting electric supply		
3.	Difficulty for water		
D.	**Economic Constraints**		
1	Lack of finance		

2	Difficulty in getting loan/Microfinance		
3	High cost of feed		
4	High price of medicine		
5	High charge of electricity		
6	High rate of interest of loan		
7	Birds are costly		
E.	**Marketing Constraints**		
1	Low egg price during summer		
2	Irregular payment of sale of eggs/meat		
3	Wholesale price of eggs are low		
4	Breakage of eggs during transportation		
F.	**Management Constraints.**		
1	Inferior quality of feed received from feed agencies		
2	Non-availability of prompt veterinary aids		
3	Non-availability of labors for poultry enterprise		
4	Non-availability of grading equipment		
5	Losses due to change in environmental conditions.		

PART : V

Please give your suggestion to overcome the constrains faced by poultry entrepreneurs

1.

2.

3.

4.

5.

6.