



Socio-Economic Profile of Poultry Farmers in Subtropical India

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Abstract

The Indian poultry industry has been growing at an increasing rate as a result of an increase in demand for non-vegetarian diets. This, in turn, has attracted new entrepreneurs to enter the poultry business market. The study was carried out to analyse the socio-economic profile of poultry farmers in relation to layer farming in order to study the impact of their social attributes in shaping the poultry business of the region. The total sample size of the study consisted of 90-layer farms. The socioeconomic parameters considered were the age of the poultry farmer, experience in the poultry business, education qualification, family size, poultry farming as a primary occupation, and land holdings of the poultry farmer. The results depicted that the region had majority of poultry farmers belonging to the old age group of more than 50 years and having experience of more than 25 years. Most of the farmers in the region had small farms with less than 80,000 birds and poultry farming was the primary occupation of more than 98 percent of the farmers. All the farmers of the region were educated and most of them were graduates.

Keywords: Layer farming, Poultry farming, Socio-economic profile, Subtropical India

Abbreviations

n%: Percentage; ha: Hectare; ₹: Indian Rupee; FY: Financial Year

Introduction

The Indian poultry industry has seen a Compound Annual Growth Rate (CAGR) of over 6 per cent in egg production during the last two reference periods *i.e.*, 2020-21 and 2021-22 [2,3]. The CAGR of poultry meat production has increased by 6.86 per cent over the previous year. In FY 2021-22, the total egg production in the country stood at 129.6 billion (in numbers) and the per capita availability of eggs over the previous year has increased from 90 to 95. This growth has been stimulated by the increase in per capita income of individuals in the country, which thereby resulted in health consciousness and increased demand for non-vegetarian diets as a rich source of protein. Amongst the non-vegetarian diet, the contribution of poultry meat is huge. Around 51.5 per cent of total meat produced in India accounted for poultry meat only. As

per the IMARC Group's forecast on the Indian Poultry market during 2022-27, the Indian poultry market size has been expected to grow up to ₹ 3.17 billion by 2027, exhibiting a CAGR of 10.59 per cent [4]. This has provided a massive opportunity for new entrepreneurs to tap into the poultry business.

Poultry farming forms the major component of the poultry business and is shaped by the social and economic background of the poultry farmers of the region. Understanding this will help the new entries in providing the critical inputs required for their project planning and appraisal in the poultry business. Therefore, the study was conducted to analyse the pattern of socio-economic factors influencing the poultry business in Subtropical India.

Material and Methods

The study was conducted in Panchkula district of Haryana, a part of subtropical India, with a sample size of 90-layer farms. The

sampled farms were categorised into small, medium, and large type farms based on the number of birds raised on each farm, worked out by dividing the range into 3 equal groups. The parameters considered to assess the socio-economic profile of poultry farmers included the age of the poultry farmer, education, land holdings, experience in poultry farming, family size, and primary occupation.

Results and Discussion

The results depicted that the majority of the layer farms (*i.e.*, 53.3%) were small farms having less than 80000 birds, followed by medium farms (35.5%) having 80,000 to 1,40,000 birds and large farms (11.2%). In terms of owners' age, the layer farmers were categorised as old-age *i.e.*, more than 50 years of age, middle-age having age between 40-50 years and young farmers having less than 40 years age. The majority of poultry farmers belonged to the old age category followed by middle-aged and young ones (Table 1). Experience-wise, the farmers were categorised as highly experienced *i.e.*, more than 25 years of experience, moderately experienced having experience of between 15-25 years, and low experienced with less than 15 years in the poultry business. The majority of the farmers had a high level of experience followed by moderate and low experience (Table 2). A significant positive correlation ($r = 0.56, p < 0.001$) of a moderate level was observed between the owners' age and their experience in poultry farming. However, no significant association was observed between the type of poultry farm with respect to the age and experience of poultry farmers.

Variables	Categories	Criteria	Small farm	Medium farm	Large farm	Total
Owner's age	Young (10.0)	(<40 yrs.)	6 (66.7)	3 (33.3)	-	9 (100.0)
	Middle age (38.9)	(40-50 yrs.)	21 (60.0)	11 (31.4)	3 (8.6)	35 (100.0)
	Old age (51.1)	(>50 yrs.)	21 (45.7)	18 (39.1)	7 (15.2)	46 (100.0)
Total	(100.0)		48 (53.3)	32 (35.5)	10 (11.1)	90 (100.0)

Table 1: Cross-table presenting owner's age vis-à-vis farm type.

Note: Figures in parenthesis indicate the percentage

Variables	Categories	Criteria	Small farm	Medium farm	Large farm	Total
Experience	Low (28.9)	(<15 yrs.)	17 (65.4)	8 (30.8)	1 (3.8)	26 (100.0)
	Moderate (30.0)	(15-25 yrs.)	12 (44.4)	11 (40.7)	4 (14.8)	27 (100.0)
	High (41.1)	(>25 yrs.)	19 (51.4)	13 (35.1)	5 (13.5)	37 (100.0)
Total	(100.0)		48 (53.3)	32 (35.5)	10 (11.1)	90 (100.0)

Table 2: Experience of a poultry farmer vis-à-vis farm type.

Note: Figures in parenthesis indicate the percentage.

Variables	Categories	Criteria	Small farm	Medium farm	Large farm	Total
Education	Secondary (11.1)	9 th -12 th standard	7 (70.0)	1 (10.0)	2 (20.0)	10 (100.0)
	Graduate (88.9)	>12 th standard	41 (51.3)	31 (38.7)	8 (10)	80 (100.0)
Total	(100.0)		48 (53.3)	32 (35.5)	10 (11.1)	90 (100.0)

Table 3: Education of a poultry farmer vis-à-vis farm type.

Note: Figures in parenthesis indicate the percentage.

The education qualification status of poultry farmers depicted that the majority of the farmers were graduates (*i.e.*, ~89%) and the rest 11 per cent of the farmers were educated at least up to secondary level (Table 3). Poultry farming was the primary occupation of 98 per cent of the farm owners and for the rest 2 per cent poultry farming was a secondary occupation (Figure 1). No significant association was observed between the education level of the farmer and the farm type. The family size of most of the poultry farm owners was less than equal to 5 members *i.e.*, around 90 per cent and the farm owners with family size of more than 5 members were around 10 per cent (Figure 2). There was a significant correlation of low-level observed between the size of family members and the farm type ($r = 0.31, p < 0.05$). The majority of the farmers with family size of less than equal to five members were operating small farms with less than 80,000 birds followed by medium farms, and large farms. The majority of farmers having families of more than five members were operating medium farms, followed by large and small farms.

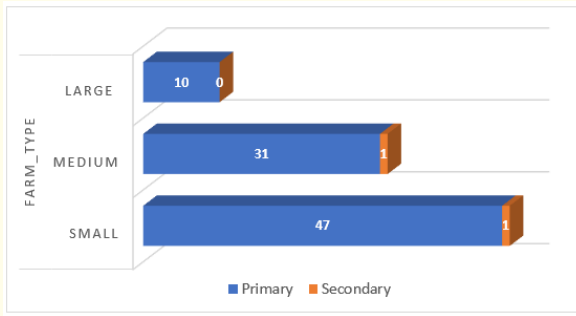


Figure 1: Poultry farming as an occupation vis-à-vis farm type.

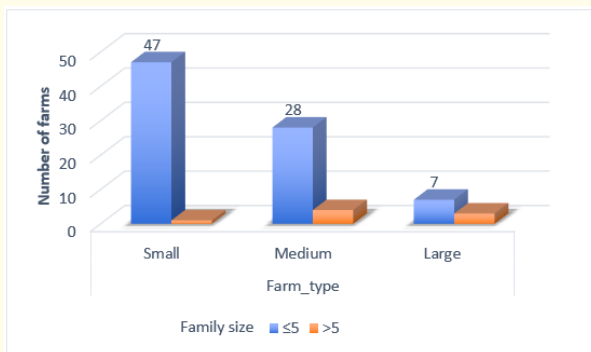


Figure 2: Family size of poultry farmers vis-à-vis farm type.

Based on the size of land holding, poultry farmers were categorised into marginal (less than 1 ha land), small (1-2 ha), medium (2-4), and large farmers (more than 4 ha). The majority of the poultry farmers had marginal and small land holdings (88.9%), followed by medium land holdings (10%). Farmers with large land holdings were negligible (~1%). Most farmers were concentrated within small and marginal land-holding categories and had small farms (Figure 3). A significant moderate level of correlation was observed between the land holdings of the farmers and the type of farm opted for ($r = 0.59, p < 0.001$).

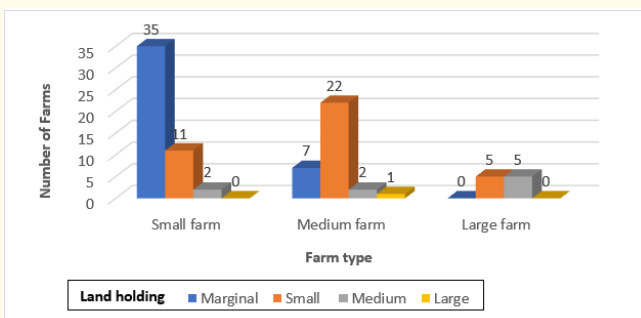


Figure 3: The land holding of poultry farmers vis-à-vis farm type.

The results of the study corroborated with the study conducted in the Tamil Nadu region with respect to the factors like the majority of the poultry fell into the age group of old age (more than 50%), followed by middle-aged and young age. The family size of most of the farmers constituted of less than 5 members (i.e., 88%). About 86 per cent of the poultry farmers had land holdings of less than 2 ha and about 90 per cent of the poultry farmers were literate. However, experience-wise only 34 per cent reported experience of more than 6 years [5].

The study conducted in the Prayagraj district of Eastern Uttar Pradesh reported similar findings with respect to the land holdings of the farmers and the family size i.e., approximately 80 per cent of the farmers had marginal to small land, and more than 50 per cent of the farmers had family size of less than equal to 5 members. However, the results did not corroborate with the parameters like the age of poultry farmers i.e., the majority (46%) belonged to the middle age group of 30 to 50 years, and about 19 per cent were illiterate. The majority (45.6%) of the farmers had experience of 11 to 20 years, followed by highly experienced i.e., more than 20 years (30.6%), and the rest had experience of less than equal to 10 years [6].

The results of the present study did not corroborate with the study conducted in Faizabad and Ambedkar Nagar in U.P [1]. with respect to some of the socioeconomic parameters related to broiler farming. Those parameters were the age of the owner, the experience of the poultry farmer, family size, and the flock size i.e., the majority of poultry farmers in the region belonged to the middle age category of between 35 to 50 years of age with experience of 2.5 to 3.9 years, the family size of more than 5 to 10 members, and the flock size of 750 to 1250 birds, respectively.

Conclusion

The study area was highly invested in the poultry layer farming business. The region had majority of poultry farmers belonging to the old age group of more than 50 years and having experience of more than 25 years. Most of the farmers in the region had small farms with less than 80,000 birds and poultry farming was the primary occupation of more than 98 per cent of the farmers. All the farmers of the region were educated and most of them were graduates. These results of the study suggest that the study region was highly developed in the poultry sector along with the higher experience and education level of poultry farmers it makes a tough challenge for new entries in the poultry business to compete or survive in that region. However, this also gives an advantage for new entrepreneurs to come up with new or innovative ideas and tap into to capture the poultry products processing market.

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