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Marketing mechanism of poultry products and by-products by layer farmers in Uttar Pradesh state

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Abstract

The present investigation was conducted to assess the marketing pattern of the different poultry products and by-products viz. eggs, spent hens and poultry excreta in Uttar Pradesh state. Total of 108 respondents were selected of which 54 were trainee and 54 were non-trainee layer farmers. Out of 54 trainees, 30 were adopters and 24 were non-adopters. Data were collected through structured mailed questionnaire and telephonic survey. Data analysis was done using suitable statistical tool. The study revealed that average age of layer farmers was 41.54 years, educationally graduated or post graduated, having poultry as primary occupation, low level experience in poultry farming and low annual income. Majority of them (70.23%) purchase chicks from Venkys and owned feed mill (90.48%). About 30 per cent of trainee layer farmers sold eggs to wholesaler with annual contract while 27.77 per cent of non-trainee layer farmers sold eggs to both direct to wholesaler without contract and direct to retailer combination. None of the layer farmers were using middleman marketing channel for selling eggs, spent hens and poultry excreta. Price of egg was ranging between Rs. 3.44 - Rs. 3.66 which varied from channel to channel. Price of spent hen was ranged from Rs. 30.22 to Rs. 35.25. Majority (83.33%) of trainees were found to be selling poultry excreta. The study was concluded with the impression that the government should come up with policies to cope up with market fluctuations, so that the volatility in the price of poultry products should be reduced.

Keywords: Egg, spent hen, excreta, wholesaler, retailer and trainee

1. Introduction

Poultry is one of the most structured sectors in animal husbandry, progressing with growth rate of 8-10 per cent in layers per year against the growth of agriculture as a whole which is around 3.4 per cent (Annual Report, DAHD&F, GoI, 2019-20) [1]. The total poultry population is 851.81 million in 2019 which shows an increase of 16.80 per cent over the previous 19th census (20th Livestock Census, 2019). India has 3rd rank in egg production in the world at present. The total egg production in India was 1.8 billion in the year 1950-51, since then, the production of egg continues to rise over the period and the egg production in the country has increased from around 95 billion in 2017-18 to 122 billion in 2019-20 registering a growth of about 8.8 per cent (BAHS, 2020). India has exported 3,50,817.80 MT of Poultry products to the world for the worth of Rs. 574.61 Crores/ 80.34 USD Millions during the year 2019-20 (APEDA Report, 2019-20). Marketing is an important aspect in poultry farming on which profitability depends. Marketing channels play vital role in disposing off the poultry products on profitable price. Poultry products are marketed through various channels connecting producers and consumers. Eggs are channelled through wholesale dealers, sub-dealers, retailers etc. in two to three stages, which raises the cost of eggs by 10-15 per cent over the actual sale price at producer's place. Birds are sold live or slaughtered at the place of sale. The fluctuations at times go to the extent of up to 25-30 per cent in a short period of 3-4 weeks. Thus, there is a need to strengthen the marketing system (Chatterjee and Rajkumar, 2015) [4]. There are long marketing channels existing in market, and the stakeholders involved in the channel received more benefit than the producer (Gairhe, 2008) [6]. The egg prices also follow seasonal pattern along with sizeable variation in prices across geographies and the average price of an egg in India is increasing 6.5 per cent year on year (Karthikeyan and Nedunchezian, 2014) [9]. Low prices, limited market outlets, long distances to reliable markets and low marketable output are the major problems affecting chicken marketing. Improvements in production and marketing systems would lead to improved marketing of eggs and chickens in rural areas (Gausi *et al.* 2004) [7]. Efficient marketing of the produce is crucial for existence of any enterprise and the economic motive behind that is the profit which could

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be achieved again through efficient marketing only. So, this study was carried out to find out the different marketing channels utilized for selling of eggs, spent hen and poultry excreta by layer farmers of Uttar Pradesh state.

2. Methodology

The state Uttar Pradesh (UP) was chosen purposively to conduct the study because of the reason having maximum number of trainees belonged to this state. The respondents (trainee and non-trainee layer farmers) were belonging to five agro-climatic zones of UP. Fifty-four trainee and equal number of non-trainee layer farmers (54) were selected purposively from same agro-climatic zone making total sample size 108. Out of 54 trainees, 30 had adopted the layer farming. So, in case of layer farming related variables, a comparison of 30 trainee layer farmers was done with 54 non-trainee layer farmers and total sample size was reduced to 84. Structured questionnaire and telephonic survey were used for data collection. Data analysis was done using suitable statistical tools.

3. Result and discussion

Marketing mechanism is operationalized in the present study as channel and prices of selling egg, spent hen, poultry excreta etc. Marketing mechanism adopted by layer farmers for selling of eggs, spent hen and poultry excreta was studied.

3.1 Sources of chicks

Majority (70.23%) of layer farmers were purchasing chicks from Venkys, followed by Skylark (16.67%) and both Venkys and Skylark private limited company (13.10%).

3.2 Sources of feed

Majority (90.48%) of layer farmers had their own feed mill, while rest (9.52%) of them purchasing feed from feed manufacturing companies. This result was just opposite to the result obtained by Gairhe (2008) [6] that majority (51.1%) farms were found using feeds from feed industry, only small and medium (15.6%) farms were found using feeds from feed dealer and 28.9 percent farms were found that they used to make feed themselves.

3.3 Marketing mechanism for eggs

Data given in table 1 revealed that poultry farmers were found to sell the eggs to the wholesaler, retailer and directly to consumer either with or without contract (seasonal or annual) on average price ranging between a minimum Rs 3.44 to maximum Rs. 3.66 per egg in the study area. While 30 per cent of trainee layer farmers sold eggs to wholesaler with annual contract, followed by direct sell to wholesaler without contract (26.67%), direct to wholesaler with annual contract and direct to retailer combination (16.67%), direct to wholesaler without contract and direct to retailer combination (13.33%), direct to wholesaler without contract, direct to retailer and direct to consumer combination (10.00%) and direct to wholesaler with seasonal contract and direct to retailer combination (3.33%). However, in case of non-trainees, 27.77 per cent of non-trainee layer farmers sold eggs to both direct to wholesaler without contract and direct to retailer combination, followed by both direct to wholesaler with annual contract and direct to retailer combination (24.07%), direct to wholesaler without contract (22.22%), direct to wholesaler with annual contract (16.67%) and direct to wholesaler without contract, direct to retailer and direct to consumer combination (9.26%). None of the trainees and non-trainees were selling eggs directly to retailer, consumer, middleman and wholesaler with seasonal contract. The average price of eggs in direct to wholesaler with annual contract only, wholesaler without contract only, both direct to wholesaler with annual contract and direct to retailer combination, both direct to wholesaler without contract and direct to retailer combination, direct to wholesaler without contract and direct to retailer and direct to consumer were Rs. 3.66, 3.44, 3.64, 3.5, and 3.60, per egg respectively. Data further revealed that in case of trainees, directly sell to wholesaler with annual contract marketing channel was the most prominent while among non-trainees, direct sell to wholesaler without contract and direct sell to retailer combination of marketing channel emerged as major one. Dinesh and Sharma (2019) also recorded the price of egg in different egg marketing channels like channel-I, (Producer-Wholesaler-Consumer) Rs. 3.60, in channel-II (Producer-Wholesalers-Retailers-Consumers), Rs. 3.50, while in channel-III (Producer-Retailers-Consumers Rs. 3.60 per egg.

Table 1: Distribution of trainee and non-trainee layer farmers according to marketing mechanism for eggs

Marketing channel		Average price per egg (Rs.)	Trainees (n=30)	Non-trainees (n=54)	Pooled (n=84)
Direct sell to Wholesaler	i) without contract only	3.44	8 (26.67)	12 (22.22)	20 (23.80)
	ii) Annual contract only	3.66	9 (30.00)	9 (16.67)	18 (21.43)
	iii) Seasonal contract only	0.00	0 (0.00)	0 (0.00)	0 (0.00)
Direct sell to retailer only		0.00	0 (0.00)	0 (0.00)	0 (0.00)
Direct sell to consumer only		0.00	0 (0.00)	0 (0.00)	0 (0.00)
Direct sell to middleman only		0.00	0 (0.00)	0 (0.00)	0 (0.00)
Direct sell to wholesaler without contract + Direct sell to retailer		3.53	4 (13.33)	15 (27.77)	19 (22.62)
Direct sell to wholesaler without contract + Direct sell to retailer + Direct sell to consumer		3.60	3 (10.00)	5 (9.26)	8 (9.52)
Direct sell to wholesaler with annual contract + Direct sell to retailer		3.64	5 (16.67)	13 (24.07)	18(21.43)
Direct sell to wholesaler with seasonal contract + Direct sell to retailer		3.48	1 (3.33)	0 (0.00)	1 (1.19)

3.4 Marketing mechanism for spent hens

Table 2 revealed that majority (60.00%) of trainee layer farmers sold spent hens to wholesaler and retailer combination channel, followed by wholesaler only (16.67%), both wholesaler and consumer combination (13.33%) and retailer only (10.00%). While in case of non-trainees, majority (72.22%) of layer farmers sold spent hens to both wholesaler

and retailer combination channel, followed by both wholesaler and consumer combination (14.81%) and retailer only (12.96%). The average price of per kg weight of bird was Rs. 30.22, 32.66, 31.44 and 32.73 in different channels like wholesaler, retailer, wholesaler + retailer and wholesaler + consumer, respectively.

Table 2: Distribution of trainee and non-trainee layer farmers according to marketing mechanism for spent hens

Marketing channel	Average price per kg body weight (Rs.)	Trainees (n=30)	Non-trainees (n=54)	Pooled (n=84)
Wholesaler only	30.22	5 (16.67)	0 (0.00)	5 (5.95)
Retailer only	32.66	3 (10.00)	7 (12.96)	10 (11.90)
Consumer only	0.00	0 (0.00)	0 (0.00)	0 (0.00)
Middleman only	0.00	0 (0.00)	0 (0.00)	0 (0.00)
Wholesaler + Retailer	31.44	18 (60.00)	39 (72.22)	57 (67.86)
Wholesaler + Consumer	32.73	4 (13.33)	8 (14.81)	12 (14.28)

3.5 Marketing mechanism for poultry excreta

Table 3 revealed that majority (83.33%) of trainee layer farmers sold poultry excreta to other farmers only, followed by selling to other farmers and using at their own farm too (16.67%). While, in case of non-trainees, majority (75.92%) of layer farmers sold poultry excreta to other farmers only, followed by selling to other farmers and using at their own farm combination (14.82%) and using at their own farm

(9.26%). Hossen *et al.* (2015) [8] recorded the similar pattern of excreta management at farm where 50 per cent of the poultry farm owners sold their excreta and litter to others whereas, 20 percent of farm utilized for community-based biogas production. About 16 per cent used their excreta and litter in the crop field as soil amendment. Very few percent of farms used for fish culture and household composting.

Table 3: Distribution of trainee and non-trainee layer farmers according to marketing mechanism for poultry excreta

Marketing channel	Average price per quintal (Rs.)	Trainees (n=30)	Non-trainees (n=54)	Pooled (n=84)
Sell to other farmers only	44.28	25 (83.33)	41 (75.92)	66 (78.57)
Use at their own farm only	0.00	0 (0.00)	5 (9.26)	5 (5.95)
Sell to Middleman	0.00	0 (0.00)	0 (0.00)	0 (0.00)
Sell to other farmers + Use at their own farm	44.28	5 (16.67)	8 (14.82)	13 (15.48)

4. Conclusion and recommendation

It may be concluded from the study that majority of the farmers sold eggs and spent hens to wholesaler, and poultry excreta to other farmers and used as fertilizer. In case of marketing channels of eggs, majority of trainee layer farmers had contract because of seasonal price fluctuation. Egg prices vary from one market to another and from one season to another. In summers and during Hindu festivals like *Navratras*, wholesale prices decrease due to which the farmers cannot get break-even the cost of production. Therefore, proper attention should be paid for efficient marketing of eggs. In order to tackle the problem of the price fluctuation, egg-based value-added products formation should be promoted among poultry entrepreneurs in poultry sector. Most of the farmers were unaware about recycling of poultry manure and how to convert waste to wealth, and sold waste at cheap prices. So, there is need to develop recycling technologies for poultry waste utilization and further educate and train poultry farmers to make efficient use of it for income generation.

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