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Study on Constraints and Problems Faced by the Farmers in Marketing of Broiler in Shahdara, Delhi NCR

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Authors' contributions

This work was carried out in collaboration between both authors. Both authors read and approved the final manuscript.

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ABSTRACT

The present investigation was carried out purposefully chosen from the NCR based on the largest area under broiler chicken consumption during period 2023 conducted at the Broiler farm, Shahdara Delhi NCR to evaluate the constraints and problems faced by the farmers in marketing of Broiler in Shahdara region. The study concluded that marketing of Broiler is more profitable for large farm groups (those with an area of more than 3000m²) to produce broiler chickens. The results indicate that the respondents had a stable economic background, with primary education that allowed them better access to all the resources. To conduct the study chi square and garrett ranking was performed. The most of farmers were selling broiler chicken through channel I (Producer-Wholesaler-Dresser-cum-Retailer-Consumer), when comparing channel II (Producer-Supplier-

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Wholesaler-Dresser-cum-Retailer-Consumer) to channel III (Producer-Commission Agent-Supplier-Wholesaler-Dresser-cum-Retailer-Consumer). Channel I is the more efficient channel and has more marketing efficiency than Channels II and III.

Keywords: Broiler chicken; garrett's ranking; marketing channels.

1. INTRODUCTION

In order to maintain a balanced diet for humans, poultry meat is a significant source of high quality proteins, vitamins, and minerals. Farms that produce eggs, and farms that raise pullets for meat production comprise the contemporary poultry farming industry, which is a sizable one. Chicken farms were the main subject of this study. It can be further subdivided into two sub-sectors: one with a highly organized commercial sector accounting for about 80% of the total market share (roughly Rs.64,000 crore) and the other with an unorganized sector accounting for about 20% of the total market share (roughly Rs. 16,000 crore). Backyard poultry, another name for the unorganized sector, is a vital source of additional income, jobs, and nutrition for the poorest of the poor [1,2]. Small and medium-sized farmers, On the other hand, are primarily involved in contract farming systems under larger integrators [3-5]. More than five million people in the nation have direct or indirect jobs in the poultry industry, which generates over Rs 400 billion in revenue annually. As poultry consumption rises, there is also significant potential for the industry to create gainful employment [6-8]. The demand for poultry products has been rising steadily due to the high income elasticity of demand and high per capita disposal income (Economic Survey, 2009–10). Over time, the marketing structure for perishable goods such as poultry products has gradually changed and grown to meet the demands of consumers in Delhi's National Capital Region (NCR). Given that human nutritionists estimate that an average adult needs 10 kg of chicken and 180 eggs annually for good health, the Indian poultry market offers a plethora of opportunities. Adults in most developed countries eat more than 240 eggs and 20 kg of chicken annually. From the mid-1990s onwards, there has been a discernible change in the kinds of products available, along with modifications to their packaging and sales strategies, marking the emergence of globalized markets [9-11]. The goal of this study was to study the constraints and to identify the major problems faced by the farmers and traders and coexists in the National Capital Region (NCR) of Delhi. The value of broiler meat has declined due to increased urbanization and disposable income levels. In the past, broiler meat was considered a luxury good. Rather, chicken meat is now regularly eaten.

2. MATERIALS AND METHODS

The study was carried out in Delhi's NCR, which is one of the most significant regions for broiler production and area. One urban area (Shahdara) was purposefully chosen from the NCR based on the largest area under broiler chicken consumption. Total 35 respondents (farmers) were selected for the study on the basis of the operational size of the landholdings. Selected farmers provided the necessary primary data for the agricultural year 2023–2024.The necessary secondary data was gathered from a variety of published sources, including books, block development offices, reports, related websites, and official government records. Interviews with personnel from the broiler chicken seller and consumer revealed consumer behaviour and product preferences.

Research Instruments: Pilot Test was conducted to finalize the schedule.

2.1 Tools and Formula

Several analytical tools were used to analyze the data, which are tabulated and shown in the following section.

2.1.1 Chi square test

A chi-square statistic tool is one way to show a relationship between two categorical variables. The difference between your observed counts and the counts you would anticipate if there was no relationship at all in the population is indicated by the chi-squared statistic, which is a single number. This test aims to determine whether a discrepancy between observed and expected data is the result of random variation or a relationship between the variables being examined. The data used to calculate a chi square statistic test must be raw, random, selected from a large sample of independent variables, and mutually exclusive.It is used for

data that consist of variables distributed across various categories and is denoted by χ 2. This formula will be use for identifying the demographic pattern of the consumers.

$$\chi 2 = \sum(Oi - E i)\ 2 / E$$

Where,

Oi = observed value (actual value)
E i = expected value.

2.1.2 Garrett ranking

The respondents' preferences were ranked using Garrett's ranking technique based on various factors. According to this methodology, participants were asked to rank each of the factors, and the results of that ranking were then translated into a score value using the formula below.To find out the most significant factor which influences the respondents, garret's ranking techniques will be used.

Percentage = 100(Rij – 0.5) Nj

Where,

Rij = rank given for ith item by jth individual.
Nj = Number of ranked by jth individual.

3. RESULTS AND DISCUSSION

This chapter covers the study's outcomes and other aspects, which are bolstered by a succinct analysis of the research's conclusions. This information may be useful to readers. The commencement of the study was solely based on the predetermined objectives. The information was gathered, categorized, examined, evaluated, summarized, and deliberated in an organized manner.

Table 1 Reveals that of the total number of respondents, 22 (62.85%) had small farms, 8 (22.15%) had medium-sized farms, and the remaining 5 (14.28%) had large farms. Farm size plays a crucial role in market-related research because it influences consumers' purchasing decisions. Farm size tends to have different buying conclusions because of differences in perception and socialization.

Table 2 Reveals that the19 respondents (54.28%) are young, 10 respondents (28.57%) are middle-aged, and 6 respondents (17.14%) are elderly. As a result, the younger age group comprises the majority of respondents.

Table 3 Reveals that the Family has a crucial correlation in market-related research since it influences purchasing decisions. Joint families and nuclear families typically come to different purchasing decisions because of the differences in their perceptions and socialization. Of the total, 21 out of the 35 respondents (or 60%) are from a joint family, and the remaining 14 respondents (or 40%) are from a nuclear family.

Table 1. Distribution of respondents according to their farm size

Sr. No.	Category	Frequency	Percentage
1.	Small	22	62.85%
2.	Medium	8	22.85%
3.	Large	5	14.28%
Total		**35**	**99.98%**

Table 2. Distribution of respondents according to their age

Sr. No.	Particulars	Small	Medium	Large	Total
1.	Young(20-35 years)	15	3	1	19(54.28%)
2.	Middle(36-50 years)	5	3	2	10(28.57%)
3.	Old(above 50 years)	2	2	2	6(17.14%)
Total		22	8	5	35(100%)

Table 3. Distribution of farmers according to their family type

Sr. No.	Particulars	Respondents			
		Small	Medium	Large	Total
1.	Nuclear	8	3	3	14(40%)
2.	Joint	14	5	2	21(60%)
Total		**22**	**8**	**5**	**35(100%)**

Table 4. Distribution of farmer according to their education

Sr. No.	Particulars	Respondents			
		Small	Medium	Large	Total
1.	Primary	8	3	1	12(34.28%)
2.	High School	5	2	1	8(22.85%)
3.	Intermediate	3	1	1	5(14.28%)
4.	Graduation &above	2	0	1	3(8.57%)
Total Literate		**18**	**6**	**4**	**28(80%)**
5.	Illiterate	4	2	1	7(20%)
Total		**22**	**8**	**5**	**35**

Table 5. Reveals the preferred marketing channel by the respondents

Sr. No.	Channel Type	No. of Respondents	Percentage (%)
1.	Channel-I	20	57.14%
2.	Channel - II	7	20%
3.	Channel-III	8	22.85%
Total		35	100%

Table 6. Problems faced by the farmers and traders

Sr. No.	Particulars	Frequency	Ranking
1.	Frequent price fluctuation.	35	II
2.	Outbreak of Diseases and High mortality rate	28	V
3.	Lack of information about government schemes and subsidies.	20	VI
4.	High Transportation Cost.	32	III
5.	Lack of amenities and facilities in the market.	15	VIII
6.	High Commission Charges.	21	I
7.	Lack of Refrigerated transportation facility.	20	1X
8.	Lack of proper infrastructure in market.	30	IV
9.	Poor monitoring of Food Safety.	18	VII
10.	Poor Quality norms in manual processing.	27	X

Table 4 Reveals that the Seven (20%) of the 35 respondents in the table were found to be illiterate. The majority of respondents had completed their primary school education. These make up 12 (34.28%), 8 (22.85%) were found to be qualified through primary school, 5 (14.28%) were found to be qualified through intermediate school, and 3 (8.57%) were found to be qualified through graduation and beyond. Thus, it is evident that the primary category, which is 12 (34.28%), has the majority among all.

I. Producer-Wholesaler- Dresser-cum-Retailer – Consumer.
II. Producer- Supplier-Wholesaler-Dresser-cum-Retailer-Consumer.
III. Producer- Commission Agent-Supplier-Wholesaler-Dresser-cum-Retailer-Consumer.

3.1 Problems Faced by the Farmers and Traders

Table 6 Reveals that that there are ten marketing constraints that affect in marketing of Broiler Chicken in Shahdara (Urban Area) of Delhi NCR are High Commission charges with 21 respondents response ranked I, Frequent price fluctuation with 35 respondents response ranked II, High transportation cost charges with 32 respondents response ranked III, Lack of proper infrastructure in market with 30 respondents response ranked IV, Outbreak of Diseases and High mortality rate with 28 respondents response ranked V, Lack of information about government schemes and subsidies with 20 respondents response ranked VI, Poor monitoring of Food Safety with 18 respondents response ranked VII, Lack of amenities and facilities in the market with 15 respondents response ranked VIII, Lack of Refrigerated transportation facility with 20 respondents response ranked IX, Poor Quality norms in manual processing with 27 respondents response ranked X.

4. CONCLUSION

Broiler chickens are the best for poultry meat. Broilers resemble regular chickens in many ways. Still, science was used in the design of this

broiler to produce more meat in less time. It is most profitable for large farm groups (those with an area of more than 3000m²) to produce broiler chickens. The marketing of broiler chicken in Shahdara, an urban area, is the main topic of this study. Analyzing the sample respondents' socioeconomic characteristics, and production and marketing constraints are its main objectives. The results indicate that the respondents had a moderate socioeconomic background, with a primary education and a stable economic background that allowed them better access to all the resources. The most of respondents were selling broiler chicken through channel I (Producer-Wholesaler-Dresser-cum-Retailer-Consumer), when comparing channel II (Producer-Supplier-Wholesaler-Dresser-cum-Retailer-Consumer) to channel III (Producer-Commission Agent-Supplier-Wholesaler-Dresser-cum-Retailer-Consumer). Channel I has more marketing efficiency than Channels II and III combined. Channel I has the highest producer share in consumer rupees, followed by Channels 2 and 3. The primary barriers to production and marketing were determined to be the following: expensive transportation; price fluctuations frequently; disease outbreaks; high mortality rates; a dearth of refrigeration facilities; and a lack of awareness of government subsidies and programs.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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