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Marketing Channels Used by Goose Breeders and Marketing Efficiency

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ABSTRACT: *The main purpose of this study was to reveal the marketing channels used by goose breeding farms in Kars province and to determine their marketing efficiencies. The primary data of this study were obtained from questionnaires conducted with 90 goose breeders in the Central, Arpaçay and Susuz districts of Kars province. Overall, goose farms consume a small portion of the geese they raise, while the majority is marketed, and it was found that domestic consumption was higher in small farms. Although it varied according to the farm, it was determined that the geese were marketed as live, fresh or dried. The most produced and marketed product is fresh carcass goose, followed by dried carcass goose and live goose. Among the by-products of goose, giblets are the product with the highest production and marketing amount. When the proportional distribution of live goose sales amounts according to marketing channels was analysed, the highest number of live goose purchasers were foreign traders (38.53%), followed by direct consumers (30.55%) and other producers (24.40%). It was seen that fresh goose meat is sold to two marketing channels: direct consumers and hotels. The most preferred marketing channel for dried goose meat is direct consumers (57.40%). When the frequency of sales to goose buyers by the interviewed farms was analysed, it was seen that direct sales to consumers are quite common. The main criterion taken into consideration by the interviewed goose breeders in goose marketing were determined as price, payment method and reliability of buyers, in order of importance. Under traditional marketing conditions, the marketing efficiency index of goose breeders in fresh goose was calculated as 5.60 on average. It was seen that the highest marketing efficiency index was for large farms. The fact that the marketing efficiency index was greater than 1 in different farm scales showed that goose farms work effectively in marketing. The fact that goose breeders obtain higher prices than traditional sales channels due to the use of direct sales channels in fresh goose marketing is considered as an effective factor in increasing marketing efficiency.*
Keywords: *Goose breeding, marketing channels, marketing efficiency.*

Kaz Yetiştiricilerinin Kullandığı Pazarlama Kanalları ve Pazarlama Etkinliği

ÖZ: *Bu çalışmanın temel amacı Kars ilinde kaz yetiştiriciliği yapan işletmelerin kullandıkları pazarlama kanallarını ortaya koymak ve pazarlama etkinliklerini belirlemektir. Bu çalışmanın birincil verileri, Kars iline bağlı Merkez, Arpaçay ve Susuz ilçelerinde bulunan 90 kaz yetiştiricisiyle gerçekleştirilen anketlerden elde edilmiştir. Genel olarak kaz işletmeleri, yetiştirdikleri kazların küçük bir bölümünü tüketirken, büyük bir kısmını pazarlamaktadır. Aile içi tüketimin ise özellikle küçük ölçekli işletmelerde daha yaygın olduğu belirlenmiştir. İşletmelere göre değişmekle birlikte yetiştirilen kazların canlı, taze veya kurutulmuş olarak pazarlandığı saptanmıştır. En çok üretilip pazarlanan ürün taze karkas kazdır; bunu kurutulmuş karkas kaz ve canlı kaz takip etmektedir. Kazın yan ürünleri arasında en yüksek üretim ve pazarlama miktarına sakatat sahiptir. Canlı kaz satışlarında, pazarlama kanallarına göre en büyük pay dışarıdan gelen tüccarlara (%38,53) aitken, bunu doğrudan tüketiciler (%30,55) ve diğer üreticiler (%24,40) takip etmektedir. Taze kaz etinin, doğrudan tüketicilere ve otellere olmak üzere iki farklı pazarlama kanalı üzerinden satıldığı belirlenmiştir. Kurutulmuş kaz eti satışında ise işletmelerin en çok tercih ettiği kanal, %57,40 ile doğrudan tüketicilerdir. Görüşme yapılan işletmelerin kaz alıcılarına satış yapma sıklığı incelendiğinde, doğrudan tüketicilere yapılan satışların oldukça yaygın olduğu görülmektedir. Görüşülen kaz yetiştiricilerinin kaz pazarlamasında göz önüne aldığı başlıca kriterler önem sırasına göre sırasıyla; fiyat, ödeme şekli ve alıcıların güvenilirliği olarak saptanmıştır. Geleneksel pazarlama koşullarında, kaz yetiştiricilerinin taze kaz için hesaplanan pazarlama etkinliği indeksi ortalama 5,60 olarak bulunmuştur. En yüksek etkinlik indeksi büyük ölçekli işletmelerde görülmekte olup, farklı işletme ölçeklerinde pazarlama etkinliği indeksinin 1'in üzerinde olması, kaz işletmelerinin pazarlama faaliyetlerinde etkin çalıştığını göstermektedir. Kaz yetiştiricilerinin taze kaz pazarlamasında doğrudan satış kanallarını kullanmaları nedeniyle geleneksel satış kanallarına göre daha yüksek fiyat elde etmeleri pazarlama etkinliklerinin artmasında etkili bir faktör olarak değerlendirilmektedir.*
Anahtar kelimeler*: Kaz yetiştiriciliği, pazarlama kanalları, pazarlama etkinliği.*

INTRODUCTION

It is widely accepted that geese are among the first domesticated animals; however, they have never been commercially utilized to the same extent as chickens or even ducks. It is stated that geese worldwide can adapt equally well to both cold and warm climates, provided they have access to shade. Despite this broad adaptability, commercial goose production is significant in only a relatively small number of countries in Asia and Europe (Buckland and Guy, 2002).

According to 2022 FAO data, goose farming is practiced in 40 countries globally, with a total goose population of 366,478,000. When examining the share of countries in the global goose population, mainland China ranks first by a large margin with 87.06% (319.06 million), followed by Mozambique with 4.20% (15.404 million) and Myanmar with 1.31% (4.8 million). The shares of other countries remain below 1%. Ranking eighth in global goose population, Türkiye accounted for 1,386,000 geese in 2022, representing 0.38% of the global total (FAOSTAT, 2022). According to the Turkish Statistical Institute (TURKSTAT) 2023 data, Türkiye's goose population stands at 1,328,175, constituting 0.36% of the total poultry population (373.75 million) in the country (TURKSTAT, 2023a).

According to FAO's 2022 data, the global export value of fresh or chilled goose meat was $299,661,000. In terms of country shares, Poland ranks first with 40.89% ($122.546 million), followed by mainland China with 28.43% ($85.186 million) and Hungary with 26.74% ($80.144 million). Combined, these three countries account for 96.07% of the global goose meat export value, positioning them as the leaders in fresh or chilled goose meat trade. Despite ranking eighth in global goose population, Türkiye has no share in the global fresh or chilled goose meat export market (FAOSTAT, 2022).

The global import value of fresh or chilled goose meat was recorded at $292,968,000 in 2022. Germany and Hong Kong (a Special Administrative Region of China) were the primary importers, accounting for 49.30% ($144.427 million) and 30.81% ($90.278 million), respectively, together representing 80.01% of the global import value. These are followed by France (4.40%), Austria (3.30%), and the Czech Republic (2.61%) (FAOSTAT, 2022). No records of fresh or chilled goose meat imports to Türkiye were found. The fact that goose meat is not widely consumed in Türkiye is seen as the most important reason for not importing goose meat. The fact that goose breeding is not widely practiced in Türkiye, goose meat prices are high compared to other meats, and consumers' meat preferences are generally oriented towards chicken, beef and lamb meat are considered as the main factors limiting consumers' demand for goose meat.

Goose meat is rich in protein (approximately 22.3%) and contains all essential amino acids necessary for human nutrition (Wereńska et al., 2021), along with low cholesterol levels (52–76 mg/100 g) (Agnieszka et al., 2021). However, goose meat is highly perishable during sales and storage and is often frozen to extend its shelf life and prevent spoilage (Shi et al., 2024). While goose meat constitutes a small share of global poultry meat production, it plays a critical role in food supply in regions unsuitable for chicken farming due to climatic conditions. Goose farming in these regions is suggested to contribute to alleviating hunger or malnutrition with minimal input requirements. Goose farming is recognized for expanding food options in many countries and is favored for its unique products, delightful taste, and health benefits. Additionally, the consumption of goose meat and foie gras is traditionally associated with feasts in many countries and has become a cultural norm (Kozák, 2021).

According to TURKSTAT's 2023 data, 38.07% (505,616) of Türkiye's live goose population is found in Kars Province, followed by Ardahan (9.55%, 126,837) and Muş (4.37%, 58,047) (TURKSTAT, 2023b). Although Kars is a significant center for goose farming in Türkiye, production remains below its potential, and breeding activities are carried out using traditional methods. Goose farming is primarily managed by small to medium-sized family farms. There are no concrete data on the marketing channels these farms use or the efficiency of their marketing practices. This study aimed to identify the marketing channels and marketing efficiency of goose breeding farms in Kars.

A review of studies conducted worldwide and in Türkiye reveals no prior research focused on the

marketing channels and marketing efficiency of goose breeding farms. The number of studies on goose farming in Türkiye is quite limited, and those conducted both in Türkiye and globally primarily address breeding aspects. In Türkiye, some studies have focused on slaughter and carcass characteristics (Tilki et al., 2004; Arslan and Tufan, 2011; Kırmızıbayrak et al., 2011; Tilki et al., 2011), while others examined feeding and performance efficiency (Aksu Elmalı and Kaya, 2008) or meat and quality characteristics (Yakan et al., 2012). A limited number of studies have analyzed the economic aspects of goose farming. Some of these investigated the evaluation of goose products and their economic importance (Aral and Aydın, 2007), others conducted cost and profit analyses of goose breeding farms (Demir and Aksu Elmalı, 2012), and some carried out general socio-economic evaluations (Demir et al., 2013). Additionally, a few studies assessed farmers' utilization of goose farming (Boz et al., 2014), conducted economic evaluations of geese raised under natural and artificial incubation (Boz et al., 2016), identified factors affecting breeding goose farming (Taşkın et al., 2017), or used time-series analysis to forecast global goose meat production (Dumlu, 2024). Globally, research has generally examined regional goose production (Rosinski, 2002; Yuwanta, 2002) and goose products (Kozák, 2021). There are also a few economic studies investigating competitive advantages in the international goose meat trade (Molnár, 2016).

MATERIALS AND METHODS

Materials

The material of this research consisted of original data obtained through face-to-face surveys conducted with farms engaged in goose breeding in Kars Province. The data collected through the surveys covered the 2017–2018 production period. For the acquisition of secondary data, various institutions and organizations such as the Kars Provincial Directorate of Agriculture and Forestry, District Agriculture and Forestry Directorates, and the Kars Chamber of Commerce and Industry were consulted. Additionally, scientific studies and reports prepared by other researchers were utilized.

Data collection methods

When determining the research area for conducting the survey, districts in Kars Province with the highest concentration of goose farming were taken into account. According to TURKSTAT's 2017 data, 32.56% (86,000 geese) of the live goose population in Kars province (264,161 geese) was located in the central district, followed by Arpaçay with 21.96% (58,000 geese) and Susuz with 12.25% (32,347 geese) (TURKSTAT, 2018). According to these data, it was determined that approximately 67% of the goose breeding in Kars province was concentrated in these three districts. Accordingly, it was decided to conduct the study in these districts where goose farming was most intensive.

Due to the lack of an official database on goose breeding farms, the number of farms to be surveyed was determined using a purposive quota sampling method, with plans to interview 100 farms. The distribution of producers across districts was determined based on the principle of proportional representation, considering the goose population in each district. However, due to a decrease in the number of goose breeding farms in some regions caused by diseases affecting geese in recent years, access to these farms has been challenging. Consequently, interviews were conducted with a total of 90 farms: 49 in the central district, 23 in Arpaçay, and 18 in Susuz.

As part of the survey, 22 villages were visited in total, including 14 in the central district, 5 in Arpaçay, and 3 in Susuz. Farms selected for the sample represented small, medium, and large farms in terms of goose numbers, based on local conditions. Based on the number of geese, farms with 1 to 25 geese were classified as Group 1, those with 26 to 50 geese as Group 2, and farms with more than 50 geese as Group 3.

Methods used for data analysis

The descriptive statistics for the examined goose breeding farms were analyzed using basic methods such as frequency distribution, percentages, arithmetic mean, and standard deviation. The usage of alternative marketing channels by goose breeders was measured using a 5-point Likert scale.

In this study, various analyses were conducted to evaluate not only the marketing margins of goose breeders but also their marketing efficiency. To analyze the differences between producer and consumer prices, the marketing margin was calculated both absolutely and relatively. The absolute marketing margin is defined as the difference between the price consumers pay for the final product and the price received by producers for the raw materials they produce (İnan, 2006). This difference represents the price charged by intermediaries for services such as purchasing, packaging, transportation, storage, and processing (Zeb et al., 2007; Adanacıoğlu, 2014). Additionally, the relative marketing margin was calculated in this study to show the proportion of the price paid by consumers that remains with the intermediaries. The formula used to calculate the relative margin is shown in Equation 1 (Smith, 1992):

Relative margin = [(Retail price – price received by the producer) / (Retail price) × 100] (1)

In this study, the marketing efficiency of goose breeding farms was also calculated. Marketing efficiency is defined as the ratio of market output (benefit obtained) to marketing inputs (costs of resources). An increase in the calculated ratio indicates an improvement in efficiency (Hussein et al., 2013; Adanacıoğlu, 2014). To calculate marketing efficiency, Acharya's Modified Marketing Efficiency formula, one of the widely used measures in the literature, was applied, as shown in Equation 2 (Dastagiri et al., 2010; Adanacıoğlu, 2014):

MME = FP / (MC + MM) (2)

In Equation 2, MME represents the modified marketing efficiency index, FP is the price received by producers, MC represents the marketing costs, and MM is the marketing margin.

RESULTS AND DISCUSSION

Demographic and structural characteristics of the surveyed goose farms

The average age of goose breeders in the surveyed farms was approximately 46 years. The average length of time spent in goose farming was around 25 years. The average household size of breeders was 6 people, with 1 person involved in goose farming and 2 people working in agriculture. There were no statistically significant differences in the averages of the groups based on the demographic characteristics of the producers (Table 1). When examining education levels, it was found that 61% of farm managers had completed primary school, and 12% had completed secondary school. There was no statistically significant difference in education levels between the farm groups.

Table 1. Some demographic characteristics of the surveyed goose breeding farms.
Çizelge 1. İncelenen kaz yetiştiriciliği yapılan işletmelere ilişkin bazı demografik özellikler.

Characteristics	Group 1	Group 2	Group 3	Total	Kruskal-Wallis Test (p)
Age (years)	44.59	44.15	49.95	45.64	.199
Experience in goose farming (years)	24.44	24.48	26.00	24.82	.897
Household size	5.14	5.70	5.61	5.50	.825
People involved in goose farming	1.14	1.33	1.48	1.30	252
People involved in agriculture	2.33	2.41	2.43	2.39	.844

The average area of land cultivated per farm iwas 108.5 decares. Although this size increased in parallel with the scale of the farm, no statistically significant difference was found between the farm groups. In general, it was determined that both crop and livestock production were carried out together in all farm groups. The highest proportion of farms engaging in both crop and livestock production was found for large farms (90.5%). When examining the crop production pattern of the farms, approximately eight products grown in the region were identified. These products were barley, wheat, oats, vetch, alfalfa, sainfoin, sugar beet, and potatoes. The crops with the largest planted areas are sugar beet, vetch, and sainfoin. Looking at the livestock inventory of the farms, there were 11 dairy cattle and 21 beef cattle per farm on average. The farms also had an average of 79 sheep and 6 goats. Regarding other livestock, the average number of geese was 45, with 24 chickens, 11 turkeys, and 28 beehives. According to the analysis, no statistically significant differences were found between the farm groups in terms of livestock (Kruskal Wallis = 25.105, p = 0.000), except for geese (Table 2).

The production and utilization of geese and their by-products in the surveyed goose breeding farms

Goose farms produce and market geese either as live animals or as carcass meat. Carcass goose meat is offered to the market either fresh or dried. The most produced (89.30 units) and sold (76.50 units) product was fresh carcass goose. This was followed by dried carcass goose (43.98 units produced; 19.82 units sold) and live geese (28.81 units produced; 23.79 units sold). Among the by-products of geese, the most produced (42.10 kg) and sold (12.01 kg) product was giblets. Giblets were followed by goose feathers (9.15 kg produced; 3.60 kg sold) and goose liver (4.72 kg produced; 1.92 kg sold) (Table 3). Kozák (2021) stated that the goose is a multipurpose winged animal and geese are primarily important for meat production. Kozák (2021) also pointed out that the consumption of goose products is of relatively small importance, but has increased substantially in recent years.

When examining the farm groups, it was found that production and marketing were most intensive in Group 3, the large-scale farms. There were notable differences in the production and marketing quantities of geese and their by-products. These differences can be considered a reflection of the traditional consumption habits in Kars. Geese are an important food source that provides the winter meat needs of families. Since some of the produced geese and by-products are reserved for family consumption, not all of them are offered to the market. Another notable point is is that although it is typically consumed after being dried with methods specific to Kars, in recent years, the consumption of it fresh has grown considerably. The main reason for this increase is attributed to the high cost of feed. Producers reduce feed costs and lower overall expenses by slaughtering geese early and storing them in deep freezers. This explains the increase in fresh goose meat consumption.

Table 2. The number of livestock per farm in the surveyed goose farms (head).
Çizelge 2. İncelenen kaz yetiştiriciliği yapılan işletmelerde ortalama hayvan varlığı (baş).

Livestock Activities	Group 1		Group 2		Group 3		Total	
	f*	Mean	f	Mean	f	Mean	f	Mean
Dairy cattle	23	10.43	32	11.53	16	10.56	71	10.96
Beef cattle	5	13.80	6	21.33	5	29.00	16	21.38
Sheep	1	1.00	-	-	2	118.50	3	79.33
Goats	2	2.50	-	-	2	9.00	4	5.75
Geese	29	22.97	40	29.16	21	103.05	90	44.75
Chickens	22	16.27	29	22.41	19	34.58	70	23.79
Turkeys	9	23.79	8	7.00	9	12.44	26	10.92
Beekeeping (number of hives)	1	20.00	2	57.50	2	3.00	5	28.20

*f: frequency.

Table 3. Average production and marketing amount of goose and by-products in the surveyed goose farms.
Çizelge 3. İncelenen kaz işletmelerinde kaz ve yan ürünlerinin ortalama üretim ve pazarlama miktarı.

Products	Group 1		Group 2		Group 3		Total	
	Prod.	Sold	Prod.	Sold	Prod.	Sold	Prod.	Sold
Live Geese (units)	22.53	19.87	25.41	15.06	42.64	42.64	28.81	23.79
Carcass (fresh) (kg)	-	-	29.33	20.00	179.25	161.25	89.30	76.50
Carcass (dried) (kg)	15.32	5.89	32.67	14.93	104.71	48.14	43.98	19.82
Goose Liver* (kg)	1.43	0.26	2.90	0.19	11.14	6.72	4.72	1.92
Goose Feathers* (kg)	2.63	0.42	6.92	0.71	19.72	11.94	9.15	3.60
Giblets** (kg)	12.40	1.60	31.50	6.70	92.70	32.50	42.10	12.01

*Goose liver, feathers, and giblets are calculated in kilograms.;**Giblets: includes heart, gizzard, head, feet, etc.

Marketing channels used in the surveyed goose farms

In the farms surveyed, when the proportional distribution of live goose sales by marketing channels was examined, the largest buyers were external traders (38.53%), followed by direct consumers (30.55%) and other producers (24.40%). The smallest portion of live goose sales (1.83%) was made to dairies. When looking at the live goose sales percentages by marketing channel for different farm groups, it was found that small-scale (Group 1) (74.29%) and medium-scale (Group 2) (62.80%) farms mostly sold directly to consumers. Large-scale (Group 3) farms (53.98%) were found to primarily sell to external traders as their main marketing channel (Table 4).

It was determined that fresh goose meat sales were made through two different marketing channels: direct consumers and hotels. In general, 94.26% of sales were made to direct consumers, and 5.74% were made to hotels. Small-scale goose farms did not make any sales to direct consumers or hotels. 100% of medium-scale farms and 93.70% of large farms sold directly to consumers. The remaining 6.30% of large farms sold fresh goose meat to hotels (Table 5).

When the channels preferred by the farms surveyed in the study for selling dried goose meat were ranked by frequency of use, direct consumers ranked first (57.40%). This was followed by other producers (20.71%), associations (10.18%), external traders (5.50%), local traders (3.85%), and restaurants (goose houses) (2.37%). In the analysis of the farm groups, it was found that only medium-sized farms made sales to restaurants (goose houses) (3.85%) and local traders (11.54%). Medium-sized (3.84%) and large-scale (8.18%) farms sold dried goose meat to external traders, while small farms made no sales to these buyers. The percentage of dried goose meat sales to direct consumers was 100% for small farms, 80.77% for medium farms, and 30.76% for large farms. Farms selling dried goose meat to other producers (40.94%) and associations (20.12%) were only large-scale farms (Table 6).

Table 4. Proportional distribution of live goose sales amounts according to marketing channels in the surveyed goose farms (%).
Çizelge 4. İncelenen kaz işletmelerinde canlı kaz satış miktarlarının pazarlama kanallarına göre oransal dağılımı (%).

Live Goose Sales Channels	f	Group 1	Group 2	Group 3	Total
		Sales Percentage (%)	Sales Percentage (%)	Sales Percentage (%)	Sales Percentage (%)
Local traders	1	-	12.56	-	2.39
External traders	2	-	-	53.98	38.53
Direct consumers	20	74.29	62.80	16.07	30.55
Other producers	9	6.66	12.56	29.95	24.40
Dairies	1	19.05	-	-	1.84
Government institutions	1	-	12.08	-	2.29
Total	34	100.00	100.00	100.00	100.00

Table 5. Proportional distribution of fresh goose meat sales amounts according to marketing channels in the surveyed goose farms (%).
Çizelge 5. İncelenen kaz işletmelerde taze kaz eti satış miktarlarının pazarlama kanallarına göre oransal dağılımı (%).

Fresh Goose Meat Sales Channels	f	Group 1	Group 2	Group 3	Total
		Sales Percentage (%)	Sales Percentage (%)	Sales Percentage (%)	Sales Percentage (%)
Direct consumers	8	-	100.00	93.70	94.26
Hotels	1	-	-	6.30	5.74
Total	9	100.00	100.00	100.00	100.00

Although goose liver is a high-value product in international markets, it does not hold the same value in Türkiye. In Türkiye, goose liver is not produced for the market; it is mostly used for family consumption or sent as gifts to relatives and friends. When examining the distribution of goose liver sales quantities by marketing channels in the surveyed farms, it was found that the majority of sales were made to direct consumers (59.22%) and external traders (40.78%). When analyzing the farm groups, it was found that small farms did not make sales to either of the two marketing channels, while large farms sold to both direct consumers (48.78%) and external traders (51.22%). All goose liver sales from medium-sized farms were made to direct consumers (Table 7).

When examining the proportional distribution of goose giblet sales by marketing channels, it was found that in general, the highest sales were made to external traders (51.53%). This was followed by direct consumers (35.25%) and local traders (13.22%). Looking at the use of marketing channels for goose giblet sales among farm groups, it was observed that only large farms (18.69%) sold giblets to local traders. The highest sales to external traders were made by small farms (92.78%), with large farms also making significant sales (56.07%). Medium-sized farms (100%) made the highest sales of goose giblets to direct consumers. This was followed by medium-scale (25.24%) and small-scale (7.22%) farms (Table 8).

Table 6. Proportional distribution of dried goose meat sales amounts according to marketing channels in the surveyed goose farms (%).
Çizelge 6. İncelenen kaz işletmelerde kurutulmuş kaz eti satış miktarlarının pazarlama kanallarına göre oransal dağılımı (%).

Dried Goose Meat Sales Channels	f	Group 1 Sales Percentage (%)	Group 2 Sales Percentage (%)	Group 3 Sales Percentage (%)	Total Sales Percentage (%)
Restaurants (goose houses)	1	-	3.85	-	2.36
Local traders	3	-	11.54	-	3.85
External traders	3	-	3.84	8.18	5.50
Direct consumers	46	100.00	80.77	30.76	57.40
Other producers	1	-	-	40.94	20.71
Associations	2	-	-	20.12	10.18
Total	56	100.00	100.00	100.00	100.00

Table 7. Proportional distribution of goose liver sales amounts according to marketing channels in the surveyed goose farms (%).
Çizelge 7. İncelenen kaz işletmelerde kaz ciğeri satış miktarlarının pazarlama kanallarına göre oransal dağılımı (%).

Goose Liver Sales Channels	f	Group 1 Sales Percentage (%)	Group 2 Sales Percentage (%)	Group 3 Sales Percentage (%)	Total Sales Percentage (%)
External traders	1	-	-	51.22	40.78
Direct consumers	4	-	100.00	48.78	59.22
Total	5	-	100.00	100.00	100.00

Table 8. Proportional distribution of goose giblets sales amounts according to marketing channels in the surveyed goose farms (%).
Çizelge 8. İncelenen kaz işletmelerde kaz sakatatı satış miktarlarının pazarlama kanallarına göre oransal dağılımı (%).

Goose Giblets Sales Channels	f	Group 1 Sales Percentage (%)	Group 2 Sales Percentage (%)	Group 3 Sales Percentage (%)	Total Sales Percentage (%)
Local traders	1	-	-	18.69	13.22
External traders	2	92.78	-	56.07	51.53
Direct consumers	8	7.22	100.00	25.24	35.25
Total	11	100.00	100.00	100.00	100.00

When analyzing the marketing channels chosen by the farms surveyed in the study for selling goose feathers, it was found that the highest sales were made to external traders (64.47%). The least preferred channel was sales to other producers (0.37%). Small farms mostly sold to direct consumers (61.11%), followed by external traders (29.63%) and local traders (9.26%). Medium-sized farms (92.86%) also predominantly used the direct consumer channel. On the other hand, unlike small and medium-sized farms, large farms (78.05%) frequently used the external trader channel (Table 9). Chen (2022) emphasizes that goose feathers generally have a more valuable marketing image. According to Chen (2022), goose feathers are more expensive and more sought-after than duck feathers.

Table 9. Proportional distribution of goose feathers sales amounts according to marketing channels in the surveyed goose farms (%).
Çizelge 9. İncelenen kaz işletmelerde kaz tüyü satış miktarlarının pazarlama kanallarına göre oransal dağılımı (%).

Goose Feathers Sales Channels	f	Group 1 Sales Percentage (%)	Group 2 Sales Percentage (%)	Group 3 Sales Percentage (%)	Total Sales Percentage (%)
Local traders	1	9.26	-	-	1.83
External traders	2	29.63	-	78.05	64.47
Direct consumers	8	61.11	92.86	21.95	33.33
Other producers	1	-	7.14	-	0.37
Total	12	100.00	100.00	100.00	100.00

Main criteria considered by the interviewed goose farmers during the goose marketing process

When examining the criteria considered by the surveyed goose breeders during goose marketing, it was found that the most important criterion, with an average score of 4.84, was "better price." This was followed by "cash payment" (4.83) and "reliability," with these two factors emerging as the most important criteria after "better price" in the marketing phase. The purchase of goose by-products (feathers, liver, giblets, etc.) by buyers was identified as the least important criterion with an average score of 2.62.

When the priority order of these criteria was examined among the farm groups, it was found that for Group 1 farms, the most important criterion was "better price" with an average score of 5.00. For Group 2 farms, this criterion was "reliability" with an average score of 4.86, while for Group 3 farms, the top priority was "cash payment" with an average score of 4.80 (Table 10).

Table 10. The main criteria considered by the interviewed goose breeders in goose marketing.
Çizelge 10. Görüşülen kaz yetiştiricilerinin kaz pazarlamasında göz önüne aldığı başlıca kriterler.

Marketing Criteria	Group 1		Group 2		Group 3		Total	
	$\bar{x}$	SD.	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD
Ongoing purchases	4.15	1.377	4.49	.562	4.20	1.056	4.31	1.008
Cash payment	4.96	.196	4.74	.443	4.80	.410	4.83	.380
Better price	5.00	.000	4.80	.473	4.70	.733	4.84	.486
Reliability	4.85	.784	4.86	.355	4.75	.444	4.83	.543
Delivery location of the goose to the buyer (proximity, distance)	2.81	1.744	2.57	1.632	2.50	1.701	2.63	1.669
Purchase of goose by-products (feathers, liver, giblets, etc.) by the buyer	2.42	1.724	2.80	1.712	2.55	1.504	2.62	1.655

$\bar{x}$: likert scale average; 1) Never 2) Rarely 3) Sometimes 4) Usually 5) Always; SD: Standard Deviation

Marketing margin and marketing efficiency in the surveyed goose farms

This section presents the marketing margins and marketing efficiency of the goose breeding farms under traditional marketing conditions. The marketing margins and efficiency of the goose farming farms were examined based on fresh goose.

When examining the relative margin for fresh geese under traditional marketing conditions, it was found that, on average, 12.85% of the absolute margin remained with intermediaries. This rate was lower for large farms in Group 3, with an average of 5.69%. For small and medium-sized farms in Groups 1 and 2, the relative margin was higher, at 21.31% and 19.85%, respectively (Table 11). In general, the low relative margin in fresh goose marketing, meaning that a large portion of the price difference between producers and consumers remains with producers, can be seen as a positive outcome. The higher producer margin in large farms can be attributed to their larger flocks of geese, which allow them to negotiate high prices with goose farms and restaurants under contractual agreements.

When the marketing efficiency index for fresh geese under traditional marketing conditions was examined, it was found that the average index value was 5.60 (Table 12). The marketing efficiency index was calculated as 2.97 for small farms in Group 1 and 3.58 for medium-sized farms in Group 2. The highest value of the marketing efficiency index was found in large farms in Group 3, with an average of 13.40. In general, the marketing efficiency index being above 1 indicates that goose breeding farms are operating efficiently in their marketing activities.

Table 11. Marketing margin of goose breeding farms in traditional fresh whole goose marketing.
Çizelge 11. Geleneksel taze kaz pazarlamasında kaz yetiştiriciliği yapan işletmelerin pazarlama marjı

	Group 1	Group 2	Group 3	Total
Average selling price of the producer (TRY/unit) (1)	120.00	142.86	163.33	147.40
Retail selling price (TRY/unit) (2)	152.50	178.24	173.18	169.13
Absolute margin (TRY/unit) (2-1) (3)	32.50	35.38	9.85	21.73
Relative margin (%) ((3/2) * 100)	21.31	19.85	5.69	12.85

Table 12. Marketing efficiency index of traditional fresh goose marketing farms.
Çizelge 12. Geleneksel taze kaz pazarlaması yapan işletmelerin pazarlama etkinliği indeksi

	Group 1	Group 2	Group 3	Total
Net price received by the producer (TRY/unit) (1)	120.00	142.86	163.33	147.40
Retail selling price (TRY/unit) (2)	152.50	178.24	173.18	169.13
Total marketing margin of intermediaries (MM) (TRY/unit) (2-1) (3)	32.50	35.38	9.85	21.73
Total marketing cost of the producer (MC) (packaging, transportation to market, etc.) (TRY/unit) (4)	7.96	4.48	2.34	4.57
Marketing efficiency index {(1 / (3 + 4))}	2.97	3.58	13.40	5.60

CONCLUSION

In this study, the marketing channels and marketing efficiency used by goose breeding farms in Kars Province, which has a significant share in goose farming in Türkiye, were examined. In general, goose farms reserve a small portion of the geese they produce for family consumption, while a large portion is marketed. It was found that family consumption is higher in small farms. Depending on the farm, the geese raised are marketed as live, fresh, or dried geese. The most produced and marketed product is fresh carcass goose, followed by dried carcass goose and live geese. Among the by-products of geese, giblets have the highest production and marketing volumes. When examining the proportional distribution of live goose sales by marketing channels, the largest buyers are external traders, followed by direct consumers and other producers. Fresh goose meat is sold through two marketing channels: direct consumers and hotels. The most preferred marketing channel for dried goose meat sales is direct consumers. When the frequency of sales to goose buyers in the farms surveyed was examined, it was found that sales to direct consumers are quite common. Farms selling live geese to direct consumers are more likely to sell to neighbors or acquaintances in the area. The main criterion considered by the surveyed

goose breeders when marketing geese, in order of importance, are price, payment method, and the reliability of buyers.

The low relative marketing margin for fresh carcass geese, which is the most produced and marketed product, is considered a positive outcome. The fact that fresh goose meat is sold through two marketing channels—direct consumers and hotels—is regarded as the main reason for this. In farms with large goose flocks that engage in contract production, the relative marketing margin decreases even further due to breeders negotiating high prices. Under traditional marketing conditions, the marketing efficiency index for fresh goose was found to be an average of 5.60. The highest marketing efficiency index was observed in large-scale farms. Moreover, the fact that the marketing efficiency index is above 1 in different farm scales indicates that goose farms are performing effectively in their marketing activities. The use of direct sales channels by goose breeders in fresh goose marketing, allowing them to achieve higher prices compared to traditional sales channels, is considered an effective factor in improving marketing efficiency.

The findings obtained in this study indicate that goose breeders face very few problems in marketing and do not have difficulty finding buyers for their products. It is well known that goose products have a market demand both domestically and internationally. However, it is believed that the domestic sales potential of goose is not fully utilized. Recent winter travels to Kars Province via the Touristic Eastern Express (Ankara Kars train) have increased interest in Kars' traditional products. The indirect effect of the Eastern Express has led to increased goose sales, providing significant income to producers, and this situation motivates them to produce larger flocks in the future. As in the case of the Eastern Express, sales development activities that create differentiation and introduce goose products to people from different cultures and regions can increase domestic sales and create positive effects on consumer behavior towards traditional products like Kars Goose Meat, which has received geographical indication certification.

Although Türkiye ranks eighth in global goose population, it holds no share in the global fresh goose meat export value, which is considered a significant shortcoming. In this regard, support should be provided to goose breeders, processors, and exporters to help Turkish goose products penetrate the global market through national incentive packages.

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