

## Constraints On Production Scales And Distribution Channels Of Erzincan Tulum Cheese

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### Abstract

*This study investigates the challenges and opportunities faced by producers of Erzincan Tulum cheese, a traditional Turkish cheese known for its distinctive flavor and production techniques. Despite its potential for growth and national recognition, Erzincan Tulum cheese remains primarily confined to local markets because of various constraints. Through qualitative research methods, including in-depth interviews with 20 producers, this article explores the underlying factors hindering the scalability, branding, and distribution of Erzincan Tulum cheese nationally and internationally.*

*The findings reveal that producers are predominantly small-scale operators who strongly prefer maintaining traditional production methods, show reluctance towards adopting modern business practices, and express a significant lack of interest in expanding their market reach. The study identifies three main barriers to growth: a knowledge gap in modern production and business management practices, a lack of trust in new market entrants and business partners, and a comfort zone that discourages innovation and expansion.*

*The research highlights a disconnect between Erzincan tulum cheese's rich heritage and its online portrayal, pointing to the untapped potential for engaging wider audiences. Additionally, it addresses the logistical and regulatory obstacles to scaling production and accessing broader markets, emphasizing the need for institutional support and infrastructure improvements. The paper advocates for a collaborative strategy involving producers, government, and marketers to align digital narratives with the cheese's artisanal roots, offering recommendations to enhance digital storytelling, optimize logistics, and create a supportive regulatory framework. This collaborative effort aims to blend tradition with modernity, securing the industry's future in the digital age.*

**Keywords:** Agricultural policy, Erzincan tulum cheese, scaling, distribution channels, e-commerce

**Jel Codes:** Q1, Q12, Q13, Q18

## Erzincan Tulum Peynirinin Üretim Ölçekleri ve Dağıtım Kanallarındaki Kısıtlamalar

### Özet

*Bu çalışma, ayırt edici lezzeti ve üretim teknikleri ile tanınan geleneksel bir Türk peyniri olan Erzincan Tulum peyniri üreticilerinin karşılaştığı zorlukları ve fırsatları araştırmaktadır. Büyüme ve ulusal tanınırlık potansiyeline rağmen, Erzincan Tulum peyniri çeşitli kısıtlamalar nedeniyle büyük ölçüde yerel pazarlara sınırlı kalmıştır. Derinlemesine yapılan 20 üreticiyle röportajlar da dahil olmak üzere niteliksel araştırma yöntemleri kullanarak, bu makale Erzincan Tulum peynirinin ölçeklenebilirliğini, markalaşmasını ve hem ulusal hem de uluslararası dağıtımını engelleyen temel faktörleri inceler. Bulgular, üreticilerin çoğunlukla küçük ölçekli işletmeciler olduğunu ve geleneksel üretim yöntemlerini sürdürme konusunda güçlü bir tercih sergilediklerini, modern iş pratiklerini benimseme konusunda isteksiz olduklarını ve pazar erişimlerini genişletme konusunda önemli bir ilgisizlik ifade ettiklerini ortaya koymuştur. Çalışma, büyümenin üç ana engelini belirlemiştir: modern üretim ve işletme yönetimi pratiklerinde bir bilgi eksikliği, yeni pazar girişimcilerine ve iş ortaklarına karşı güven eksikliği ve yeniliği ve genişlemeyi caydıran bir konfor alanı. Araştırma, Erzincan tulum peynirinin*

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zengin mirası ile çevrimiçi tasvir arasındaki bağlantı kopukluğunu vurgulayarak, geniş kitlelerle etkileşim için değerlendirilmemiş potansiyele işaret etmektedir. Ayrıca, üretimin ölçeklendirilmesi ve daha geniş pazarlara erişim engellerini ele almakta, kurumsal destek ve altyapı iyileştirmelerine olan ihtiyacı vurgulamaktadır. Makale, üreticiler, hükümet ve pazarlamacıları içeren işbirlikçi bir strateji savunmakta, dijital anlatıların peynirin zanaatkar kökleriyle uyumlu hale getirilmesi, dijital hikaye anlatımının geliştirilmesi, lojistiğin optimize edilmesi ve destekleyici bir düzenleyici çerçeve oluşturulması için öneriler sunmaktadır. Bu işbirlikçi çaba, gelenek ile modernliği harmanlamayı ve dijital çağda endüstrinin geleceğini güvence altına almayı amaçlamaktadır.

**Anahtar kelimeler:** Tarım politikası, Erzincan tulum peyniri, ölçek, dağıtım kanalları, e-ticaret

**Jel Kodu:** Q1, Q12, Q13, Q18

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## 1.INTRODUCTION

Erzincan tulum cheese, recognized for its distinctive taste and traditional production methods, stands as a hallmark of Turkish culinary heritage, particularly embodying the cultural and economic fabric of Erzincan (Yılmaz & Öztürk, 2018). Known for its unique flavor, imparted by the aging process in goat skins, this cheese represents a significant aspect of Erzincan's identity and contributes to the local economy (Karaali & Demirci, 2020). Despite being a product selected in the most delicious cheese category by various well-known gourmets (Gül, 2022; Yaşın, 2018), it is produced on a relatively small scale, especially when compared to cheese industries in countries like Italy, the Netherlands, and France, which have successfully branded and marketed their cheese products globally (Graseni & Ayora-Diaz, 2021; Ignatiev & Ysyfra, 2022). In 2017, approximately 3.3 million wheels (about 137,000 tons) of Parmesan cheese were produced in Italy's Parmigiano region, using around 18% of all milk produced in Italy (clal.it). In the same year, the production of Tulum cheese in Erzincan was only about 4-5 thousand tons (Tekinşen & Akar, 2017). The difference lies not only in quantity but also in price. In March 2024, the price of 1 kilogram of 24-month-old Parmigiano Parmesan cheese was 60 EURO (<https://cantinadirect.com/>), while that of Erzincan Tulum cheese was 10 EURO (<https://www.akpinartulumpeyniri.com/urun/erzincan/>).

However, the intricate dynamics of Erzincan tulum cheese production, marketing, and organizational challenges remain poorly understood. Although cheese enjoys local popularity and support, its potential for broader recognition and economic contribution remains untapped mainly (Gökçe, 2022). Factors such as limited production capacity, marketing strategies, distribution networks, and the impact of regional economic disparities on cheese production have not been fully explored (Özdemir & Arslan, 2017). This lack of detailed insight hinders strategic development that could elevate the Erzincan tulum to a more competitive status on national and international platforms (Kamber, 2008).

Thus, in this paper, we undertake a comprehensive analysis of the production and sales conditions of Erzincan tulum cheese, employing qualitative interviews with producers, market analysis, and case studies of successful cheese industries globally (Kamber, 2008). Our findings reveal key challenges in production efficiency, marketing strategies, and the regulatory environment (Davis & Thompson, 2018). Furthermore, we identify innovative practices and organizational models that can be adapted to enhance the competitiveness of Erzincan tulum cheese (Meyer, 2021).

Through this research, we contribute to the existing literature by providing a detailed examination of the factors affecting the production and marketability of Erzincan tulum cheese. We offer practical recommendations for producers, suggest strategies for overcoming organizational and marketing challenges, and propose policy measures to support the growth of the tulum cheese industry in Erzincan (Williams & Patel, 2022). This study highlights the potential for Erzincan tulum cheese to become a significant player in the global cheese market. It underscores the importance of integrating traditional products into broader economic development strategies (UNESCO, 2020).

### 1.1 Underdeveloped Erzincan Province and Migration

Erzincan is a province in eastern Türkiye, known for its natural environment, rich cultural heritage, and agricultural potential. Despite these advantages, Erzincan has faced economic development challenges common to many Eastern Anatolia regions (Akkay, 2019). In 2019, the income per capita in Erzincan was USD 7,710, whereas Kocaeli's highest income per capita was USD 15,643. The eastern and southern eastern provinces are members of the lower middle-income group. These challenges stem from various factors, including geographical isolation, limited industrial base, and infrastructure deficiencies.

The economic problems associated with Eastern Anatolia are migration and population loss. The neglect of Eastern Anatolia and its rural areas is due to Türkiye's urban-centered growth strategies (Akin, 2005). Growth centered around major urban centers denotes the transfer of all resources to these areas due to their central positions, guided by interest groups (Lipton, 1977). The consequences of excessive urbanization and neglect of the rural regions have led to saturated city labor markets, overloaded public services, a stifled economy in rural areas, low population, income distribution inequality, and poverty (Gugler, 1982; Lipton, 1977). Moreover, compared to industrialized countries, the cycle of reliance on imports and current account deficits due to manufactured technology has entered a vicious cycle because of distorted sectoral developments (Lipton, 1977; Grabowski et al., 2007). Türkiye's industrial investment strategy has been importing industrial structures from foreign countries and focusing on cities in the western regions, creating a need for employment. This has led to migration from rural areas. However, these industries became dependent on imported raw materials and technology. As a result, a structural current account deficit emerged, and unemployment rose with the advent of new technologies (Figure 1). Severe disproportionate urbanization, an income gap between East and West, and environmental pollution are also accompanied. Yet Türkiye could have developed its technology based on raw materials by investing in and growing structures supporting rural economies based on natural factors. Without a continuous foreign trade deficit, it would have had a balanced and steadily growing economy (Grabowski et al., 2007).

**Figure 1.** Urban-Centered Growth



**Source:** Grabowski et al., 2007.

Due to approaches focused on growth in major cities, many developing countries have faced these problems. For example, as a result of urban-centered development projects followed in Botswana and Ethiopia, agriculture has been neglected, rural-urban income equality has deteriorated, and rural areas have been impoverished (Sechele, 2016, p. 70; Grabowski & Self, 2018, p. 10). However, no country in the world—except city-states—has achieved development without advancing its agricultural sector (Grabowski et al., 2007, p. 82). Agriculture-focused development will facilitate the growth of both agricultural and other industries (Grabowski & Self, 2018, p. 75). In rural areas, industry should develop according to the village model, and people living in these areas should be

brought to a producer position. In addition, cooperative activities should be supported to decrease costs in rural areas and increase bargaining opportunities. Those in the agricultural sector should be encouraged to engage in production using organic farming methods, which have been growing recently and are significant for environmental and health reasons. New income areas should be created or encouraged for people in the migration-giving segment (Özdemir, 2012).

The Erzincan economy has traditionally been based on agriculture and livestock. While these sectors provide the backbone for local livelihoods, their reliance makes the economy vulnerable to climatic and market fluctuations.

There is a limited industrial base, with small-scale manufacturing primarily serving local needs. This limits economic diversification and growth. Investment in the region is constrained by the perceived risk associated with its underdeveloped status, leading to a cycle of low economic activity and limited external investment.

Economic challenges have led people to migrate from Erzincan to more developed urban centers for better employment opportunities. This migration, particularly of the younger workforce, reduces the potential for local economic development and intensifies demographic challenges. In Türkiye, where 620,609 people from Erzincan are determined to live, the number of Erzincan residents living in Erzincan has fallen behind those living abroad as expatriates. According to the latest population data, while 222,918 people reside in Erzincan, the number of Erzincan residents living abroad has been identified as 397,691, which is 78.40% more than those living in Erzincan (TÜİK, 2024).

Despite these challenges, Erzincan has significant economic potential, especially in the agricultural sector. The province's agricultural industry, particularly the production of Erzincan tulum cheese and other local specialties, presents an opportunity for growth and branding that can leverage Erzincan's cultural heritage.

## **2.RELATED WORKS**

The production and significance of Erzincan tulum cheese extend beyond mere culinary delight; it represents a nexus of cultural heritage, economic sustenance, and geographical identity (Kamber, 2008). Extensive research has examined the intricate relationship between traditional cheese production methods and regional development, highlighting the potential for traditional practices to contribute to sustainable rural economies (Nyamakwere et al., 2022).

Erzincan tulum cheese's reliance on high-quality local milk underscores the importance of environmental and farming practices in producing premium artisanal foods, as explored by Carlsson Kanyama et al. (2020), who emphasized the linkage between local ecological conditions and the quality of dairy products. The methodology of cheese production, particularly the maturation in unique skins, aligns with findings from McSweeney (2004), who illustrated how traditional aging processes can enhance the biochemical properties of cheese, contributing to its distinctive flavor and nutritional value.

The global success of cheese industries in Italy, the Netherlands, and France, as outlined by Graseni and Ayora-Diaz (2021) and Ignatiev and Tsyfra (2022), is in stark contrast to the smaller scale of Erzincan tulum cheese production. These studies delve into how strategic branding, marketing, and quality control have enabled European cheeses to acclaim internationally, offering valuable lessons for Turkish producers.

Erdem and Karapinar (2017) and Ilgar (2019) have critically examined the role of geographical indications (GIs) in valorizing local products and fostering economic development in rural areas. Their research demonstrates how GIs can serve as a tool for protecting and promoting traditional

products like Erzincan tulum cheese, potentially opening avenues for global recognition and market access (Table 1).

The socio-economic challenges faced by small-scale cheese producers, particularly in adapting to modern production standards while preserving traditional methods, were discussed by Akın and Karadaş (2021) and Çiftçi and Durukan (2020). These studies call for a balanced approach incorporating technological advances without compromising the artisanal essence of cheese production.

Furthermore, Güzeler and Fırzuza (2020) and Göker and Üçok (2006) examined the operational dynamics of family-owned cheese production businesses, highlighting the need for scientific quality standards and professional management practices to ensure product excellence and public health.

In summary, the existing literature on Erzincan tulum cheese and similar artisanal products indicates a complex interplay of factors influencing their production, marketing, and eventual success. As this review suggests, addressing the challenges faced by Erzincan tulum cheese producers requires an appreciation of traditional knowledge and practices and a willingness to engage with modern business strategies, regulatory frameworks, and market dynamics.

**Table 1:** Provinces with Registered Geographical Indications

Name of Geographical Indication	Application and Protection Dates
Diyarbakır Braided Cheese	15.02.2010
Ezine White Cheese	10.05.2005
Erzurum Çivil Cheese	17.12.2007
Erzurum Göğermiş Cheese	01.03.2010
Erzincan Tulum Cheese	21.08.2000
Ezine Cheese	24.02.2006
Halloumi / TRNC	10.10.2008
Kars Kashar Cheese	14.02.2014

**Source:** (İlgar, 2019)

Despite this, the inability of Erzincan tulum cheese to enter the external market, the lack of necessary attention to production conditions, and the lack of brand creation have been issues. Opting for a traditional production method reduces the cost of cheese but results in a loss of quality, price, and branding.

### 3.METHOD

Qualitative thematic analysis is a structured technique for examining qualitative data in academic discussions. This method facilitates the identification of themes, concepts, and patterns, thereby fostering an in-depth understanding (Lindgren et al., 2020). It is particularly effective for summarizing extensive textual data and directly deriving insights from participants' messages (Gupta et al., 2018). This approach ensures that findings are directly derived from the data, minimizing the influence of researcher bias. Thus, qualitative content analysis is invaluable for revealing new perspectives on the research topic.

This method was chosen to better understand perceptions of institutionalization, marketing, and professionalism among Erzincan tulum cheese producers (Table 2). The interview method will also help understand cheese producers' hesitations in transitioning to modern structures and methods. The flow of questions in the semi-structured interview changed according to the responses given (Table 2).

**Table 2. Interview Question**

I am here to understand the production and distribution of Tulum cheese in Erzincan. This interview is entirely voluntary. If you wish to stop for any reason, please let me know. We can end the conversation at this point, and I can delete everything you have told me up to that moment. Do you consent?
Can you tell me about your process for producing, marketing, and distributing Tulum cheese in Erzincan in the context of your business?
How did you distribute the last batch of Tulum cheese you produced? Can you mention a problem you encountered?
What are you doing to brand the Tulum cheese you produce? Can you explain?
To which country did you last send Tulum cheese abroad? How did they contact you? Can you describe a problem you encountered with export?
Is there a question you feel I should have asked but didn't, or one you were expecting/wanting me to ask?

Qualitative research does not produce statistical data. The number of samples was determined after identifying similarities (patterns, motifs) in the data obtained from report shares. In these interviews, the cause-and-effect relationships of producer behaviors were captured. Here, the focus is not on the number of participants but on continuing until a trend (pattern, motif) emerges from users' investment experiences. It has been proven in qualitative studies that saturation is reached between nine and sixteen users (Hennink and Kaiser, 2022). Interviews were conducted with 20 tulum cheese stakeholders. Among those interviewed, 9 are producers, 2 are sellers, and 9 are farmers (table 3).

**Table 3. Ages and Positions of Interviewees**

Code	Age/Man/Woman	Occupation
1	24/M	Farmer
2	35/M	Producer
3	23/M	Farmer
4	26/M	Producer
5	35/M	Producer
6	22/W	Seller
7	22/M	Farmer
8	47/W	Producer
9	25/W	Farmer
10	28/M	Seller

11	32/M	Farmer
12	44/M	Farmer
13	57/M	Farmer
14	70/M	Farmer
15	22/M	Farmer
16	27/M	Producer
17	27/M	Producer
18	48/M	Producer
19	65/M	Producer
20	21/M	Producer

#### **4. FINDINGS**

The experiences of Erzincan tulum cheese producers are presented in two main ways: positive and negative aspects.

##### **4.1. Positive**

Product quality, storage conditions, and e-commerce development have been observed from a positive perspective. However, these improvements also need to be further improved.

##### **4.1.1. Product**

The confidence expressed by Producer 4 in the quality and taste of their cheese and their belief in its high demand underscores a common sentiment among artisanal producers. This confidence stems from their close involvement with every stage of the production process, from sourcing raw materials to producing the final product. Such producers often have a deep understanding of their craft and a strong personal commitment to maintaining high standards, which, in their view, directly translates into their products' superior taste and quality.

However, the absence of an external verification body, such as a union or institute, to officially confirm the taste or oversee the production process presents a notable challenge. This gap means that although producers may be confident in their product's quality, no standardized quality assurance or taste validation method has been recognized beyond personal claims. This lack of external validation can affect consumer trust, especially among new customers without prior product experience. This can also limit the producer's ability to command higher prices or to expand into new markets where such certifications or endorsements can lend additional credibility.

In addition, an external structure can provide valuable services beyond mere certification. It could offer support in areas such as quality control standards, marketing, access to broader markets, and even advocacy for the interests of producers within the industry. Without such structures, producers like Producer 4 rely primarily on their reputation and direct customer feedback, which, while valuable, might not be sufficient to achieve broader recognition or to ensure consistent standards across the industry.



*"When I look at the strengths in cheese sales, I vouch for my cheese because it is my production. I believe it's delicious, so it has a high demand."* Producer 4

#### **4.1.2. Storage Conditions**

Producers 2, 4, and 9's comments shed light on the meticulous attention that some producers pay to the storage and distribution conditions of tulum cheese, underscoring the importance of maintaining the quality and safety of the product until it reaches the consumer. These statements also highlight a differentiation in the industry between those who adhere to best practices for product handling and those who might compromise these standards due to a lack of resources, understanding, or disregard for the potential impact on product quality and public health.

Producer 2 expresses concerns about improper cheese distribution practices, such as outside-designated business locations or uncontrolled environments like vehicles that may not be properly refrigerated. This not only risks the integrity of the cheese but also potentially jeopardizes consumer trust in the product.

Producer 4 emphasized the necessity of *"shock freezing"* the cheese and using refrigerated vehicles for distribution. This approach indicates a commitment to preserving cheese quality by maintaining the cold chain, which involves a series of temperature-controlled environments necessary to keep perishable products.

Producer 9 illustrates a proactive distribution approach that uses their vehicles for delivery to sales points and uses thermally insulated vehicles for bulk or long-distance orders. This ensures that cheese remains in a controlled environment and reflects a direct investment in maintaining product quality through distribution.

These practices highlight the varied approaches and importance of proper storage and distribution in the cheese industry. Adherence to these standards is crucial for ensuring product quality from production to the point of sale, affecting consumer satisfaction, safety, and the overall reputation of producers. The existence of producers and sellers who do not comply with these conditions poses challenges to the industry, potentially undermining the efforts of those who invest significantly in maintaining high standards.

*"I do not find distributions done outside business places correct. I don't think highly of tulum cheese produced and sold illegally. I believe the product should be displayed on-site. I also find displaying them in cars to be wrong. Cheese must always be kept in a cold environment."* Producer 2

*"We should shock and freeze the tulum cheese. The cheese that enters the skin must be preserved in cold storage. After quickly loading our refrigerated vehicles, we started distribution. I have seven refrigerated vehicles for this job. I manage the distribution process through them."* Producer 4

*"We delivered to the sales points using our vehicles. We made hand deliveries to our immediate surroundings. We delivered bulk orders and long-distance orders using thermally insulated vehicles. We haven't encountered any problems so far."* Producer 9

#### **4.1.3. E-commerce and Social Media**

The shift toward e-commerce and the use of social media for promotion by producers like 6, 17, 19, and 20 underscore the broader trend within the agricultural and food production sectors toward digital platforms to reach broader markets and adapt to consumer preferences. This transition reflects the recognition of the growing importance of online presence and digital marketing in today's economy, where consumer behaviors are increasingly influenced by convenience, accessibility, and digital engagement.

Producer 6's experience highlights the logistical considerations of selling perishable goods online, such as the need for cooling molds and reliable courier services to ensure product quality upon delivery. This adaptation opens new markets and presents challenges unique to the online sale of food products.

Producers 17 and 19's comments reflect an understanding of the need for meticulous work and continuous improvement in their online presence. They indicate a strategic approach to branding and customer engagement through social media platforms. The emphasis on developing a brand and institutionalizing Türkiye through digital efforts signifies Türkiye's ambition to establish a more substantial and recognizable presence in the market.

Producer 20's mention of offering a cash-on-delivery option illustrates how producers are experimenting with different strategies to accommodate consumer preferences and enhance the online shopping experience. This approach also suggests an awareness of the barriers to online purchasing, such as trust and payment security, and a willingness to adapt to overcome these challenges.

However, the reliance on static promotions—primarily showcasing product images and prices—points to a potential area for growth. Incorporating storytelling into marketing efforts could significantly enhance the effectiveness of these digital strategies. Storytelling can create a compelling and relatable brand image that connects consumers with the origins and values of the product and differentiates the brand in a crowded marketplace.

These producers' moves toward e-commerce and social media marketing reflect a strategic response to changing market dynamics and consumer behaviors, highlighting the necessity to reach customers beyond traditional methods. This study also illustrates the evolution of marketing strategies within the food industry, where technology and storytelling are critical to successful consumer engagement and brand building.

*"We haven't done it abroad, but we have done it in other cities. They contact us via our website (i.e., Instagram). We have a courier company in place. There are small cooling molds for the products we send. They take those. We haven't encountered any problems."* Producer 6

*"Our brand is our own. We will try to do our work meticulously. We will try to improve ourselves on social media platforms."* Producer 17

*"We are developing our efforts on e-commerce and social media sales points. We have become institutionalized throughout Türkiye. We have a budget for continuous advertising expenses, and we do them."* Producer 19

*"Due to the advances in technology nowadays, consumers prefer to buy through social media instead of coming and buying from the shop. We also try to improve ourselves on social media. For example, we offered a cash-on-delivery option to people."* Producer 20

#### **4.2. Negative**

From a negative perspective, businesses remain very small-scale, are conservative in their distribution channels, work with the same customers, do not make an effort for branding, and do not have international sales.

#### 4.2.1. Scaling

The producers' statements reflect a common theme among small-scale and traditional businesses, particularly artisanal cheese production. Producer 5's comment about "frying in our grease" suggests a preference for traditional methods and a more straightforward way of life. Many small-scale producers take pride in their traditional methods, which contribute to the uniqueness and quality of their products. This lifestyle choice may be more about preserving heritage and less about expansion or modernization.

Producer 13's remarks indicate a belief that branding and marketing are activities suited to larger businesses with more resources. Small-scale producers often rely on the quality of their products and Word of Mouth to sustain their business, viewing branding as an unnecessary expense or effort that doesn't align with their operational scale or values.

These statements reflect a sense of contentment with their current business scale and market reach. They are accepting of their role and scale within the market, with no strong desire to expand or change. This mindset can stem from satisfaction with their current lifestyle, financial stability within their existing market, or reluctance to take on the risks associated with growth.

The lack of a vehicle, as mentioned by Producer 5, and the general tone of the comments suggest limited resources. Expanding operations, investing in branding, or entering new markets requires capital and resources that small-scale producers might not have or are unwilling to risk. There's often a fear of overextension, where attempting to grow could jeopardize the existing business.

Producer 17 mentions running a business with a family member. Many small-scale operations are family-run, with deep ties to their community. This can lead to a business philosophy prioritizing maintaining these relationships and community roles over aggressive expansion or modern business practices.

**Lack of Knowledge or Interest in Modern Business Practices:** There might be a lack of knowledge about the benefits of branding and modern marketing techniques or an interest in adopting these methods. Traditional producers may not be familiar with or trust modern business practices, preferring to stick to what has worked for them historically.

*"We don't have a vehicle, and we're frying in our grease. We'd prefer to continue like this."* Producer 5

*"Branding is for big businesses. I do this on my own. I have never tried to create a brand. We sell enough to make a living; it suffices for us."* Producer 13

*"This place belongs to my uncle; we run it together. We make tulum cheese and sell it retail."* Producer 17

Many producers do not even have a registered company. Small producers often operate within the informal economy in many rural and traditional communities. Small-scale producers usually focus on serving local communities or markets where informal business practices are more accepted and understood. Their scale of operation may not justify the need for formal registration, in their view, especially if their sales are predominantly direct to consumers in their locality. In many traditional communities, businesses have been operating informally for generations. Producers like those from Refahiye may continue these practices, prioritizing tradition and community norms over formal business operations. Avoiding formal registration might also be motivated by a desire to avoid regulatory oversight and tax obligations, which could impose additional burdens on small-scale producers operating with limited profit margins.

*"We do it in our village. We are originally from Refahiye. We have a small place in the village, so we go there and do it. We are not registered"* Producer 8

#### **4.2.2. Distribution**

Producer 1 and 6's comments reflect several key insights into Erzincan distribution practices and preferences of small-scale tulum cheese producers. Broader distribution can come with challenges, including the need for better infrastructure, logistics, marketing, and compliance with regulations, which small-scale producers might find daunting or impractical. Focusing on local sales and specific wholesalers allows them to meet demand without overextending their resources. Using existing networks and direct sales can be more cost-effective for small producers than investing in broader distribution channels. This approach reduces the need for intermediaries, which can increase the cost of the product due to added margins.

*"In Erzincan, the distribution of tulum cheese is generally provided by the same wholesalers, and we make first-hand sales to our customers as much as possible. Within these possibilities, we can establish a village product market and provide better service to the public."* Producer 1.

*"We do not distribute because we have sales points, so people come and buy from here. Quite a few in Erzincan produce a lot and take on the distribution. But we prefer to fry in our grease."* Producer 6

Producers 8, 11, and 12 reflected a common preference among small-scale Tulum cheese producers for localized, community-centered distribution networks. Selling within their circles allows producers to maintain a personal connection with their customers and fosters trust and loyalty. This trust is crucial in artisanal and traditional products like Tulum cheese, where the story and authenticity play significant roles in consumer choices. Producers avoid the complexities and costs associated with broader distribution channels by keeping distribution simple and local. This approach suits their production scale and aligns with sustainable practices by reducing the carbon footprint associated with broader distribution networks. For small producers, the economics of scale might not justify the investment in marketing and distribution required to reach a broader market. Staying local minimizes costs and aligns with the practical realities of production capacities.

*"Since I make and sell within my circle, I have made no effort to grow my business or brand. I do small things on my iscale and prefer to continue this way."* Producer 8

*"We sell to friends, relatives, and acquaintances. We mostly sell to close circles. We're frying in our fat."* Producer 11

*"I do not find distributions made outside sales points." Tulum cheese is sold in many Erzincan shops. Every producer conducts its distribution with sellers and suppliers."* Producer 12

*"We have no sales outside. We do it around the city district."* Producer 14

Producer 3's statement highlights a critical challenge in distributing perishable goods like Tulum cheese, emphasizing the importance of maintaining product integrity during transportation. Like many artisan cheeses, Tulum cheese is sensitive to temperature, humidity, and handling. During shipping, these conditions are difficult to control, leading to potential spoilage or quality degradation. Shipping perishable products involves complex logistics to ensure they are maintained at the correct temperature and humidity levels. Lack of infrastructure or high costs for small producers can make it difficult to guarantee these conditions throughout shipping. Product loss or delays in transit are significant concerns. Prolonged shipping times can be detrimental to the freshness and edibility of cheese, resulting in spoilage and financial loss. Direct delivery helps maintain high customer satisfaction by ensuring product quality. Personal interaction strengthens the producer-consumer relationship, fostering loyalty and trust.

Our distribution is either by hand or by shipping. However, shipping involves issues like product loss, not reaching the consumer, staying in shipping for months, and getting moldy. When we sell outside, we prefer to hand it over directly," Producer 3

#### **4.2.3. Branding**

The comments from Producers 7, 11, 12, and 16 shed light on the nuanced perspective that small-scale Tulum cheese producers in Erzincan have towards branding and market presence. The small-scale nature of their operations means limited resources in terms of both livestock and capital. Producer 7 mentions that expanding to a scale where branding becomes a significant asset would require more substantial investment and resources than they currently possess or are willing to risk. For producers like Producer 11, the primary market consists of their immediate surrounding friends, family, and local community. This direct and localized distribution model minimizes the perceived need for branding since their business relies on personal relationships and the intrinsic quality of their product rather than brand recognition. Producer 12's efforts to promote their brand as much as possible within their means highlight a distinction between active promotion and the broader concept of branding. While they recognize the importance of making their product known, the full scope of branding—developing a distinct identity, values, and consistent customer experience—may be beyond their current capabilities or needs. Producer 16 touches on an interesting aspect of Tulum cheese as an "unbranded brand." A collective identity and reputation associated with Tulum cheese from Erzincan transcends individual producers. This shared heritage reduces the pressure on individual producers to develop distinct brands, suggesting a communal approach to market presence.

Producer 16 also hints at a broader sense of responsibility among stakeholders—from government to producers—to promote Tulum cheese on a larger scale. This suggests that although individual producers might not prioritize branding, there is recognition of the potential value in collective marketing efforts to elevate the profile of Tulum cheese nationally and internationally.

*"We didn't strive for branding. Everyone wanted to brand, but our means were limited. We had a certain number of cows and a certain amount of capital. To brand, so to speak, you need to go into mass production. You need to have the means to meet demand when there's demand. We thought we couldn't meet the demand, so we didn't do anything for branding. We continued production on our scale."* Producer 7

*"I did not try to brand. I'm selling it to my surroundings."* Producer 11

*"The birth of a brand is only possible through its promotion. I will try to promote my brand as much as I can."* Producer 12

*"Since we mostly sell our products wholesale, we cannot do much for branding. But tulum cheese is an unbranded brand. We must promote it well on behalf of our province and bring it to the national level. It's a general responsibility from bureaucracy to seller, consumer to producer."* Producer 16

#### **4.2.4. Sales Abroad**

The lack of interest in international sales among these producers can be attributed to a combination of practical challenges, a focus on maintaining the traditional quality and integrity of their product, and contentment with the scale and scope of their current operations. Exporting requires additional resources, including financial investment, knowledge of international markets, and compliance with

export regulations and standards. Small-scale producers, who often operate with limited resources, might find these requirements daunting and beyond their current capabilities.

*"We never sent abroad. We're not even thinking of sending," Producer 5*

*"We did not make international sales, nor are we thinking about it," Producer 10*

*"We didn't sell abroad," Producer 11*

*"We have no sales outside. We do it around the city district," Producer 14*

Producer 4's experience highlights that, despite the significant challenges associated with exporting artisanal products like Tulum cheese, it is possible to achieve international sales through strategic efforts and overcoming specific hurdles. Producer 4 mentions securing a deal at a fair abroad, which suggests that participating in international food fairs and trade shows can effectively gain exposure. These events allow producers to showcase their products to a global audience, connect with potential buyers, and establish direct relationships with international distributors or retailers. The mention of facing trouble at the export related to the inspection of freezer-equipped vehicles indicates the importance of complying with global food safety and transportation standards. Success in exporting requires understanding and adhering to these standards, which can be stringent, especially for perishable goods. Producers who meet these requirements can navigate the logistical challenges of keeping their products fresh during transportation.

*"I sent tulum cheese to England. We secured a deal at an international fair. We faced some problems during export. They wanted to inspect our freezer-equipped vehicles" Producer 4.*

Producer 18 and Producer 1's experiences shed light on informal and personal channels as viable means for small-scale producers to bypass traditional export barriers and tap into international markets. Leveraging personal connections and expatriate communities offers a practical, albeit limited, alternative for small-scale producers to engage in global sales. Sales through relatives and their circles rely on trust and existing relationships. This method minimizes payment and quality assurance risks, as the transactions are between people with a personal connection or mutual acquaintances. Producer 1's mention of European Union harmonization laws highlights small producers' regulatory challenges when exporting. Utilizing personal networks to carry goods abroad can sidestep some of the formalities and restrictions imposed on commercial exports, although this method has limitations in scale and legality. Traditional export routes involve significant logistics, marketing, and compliance costs. Delivering products through personal contacts reduces these expenses, making international sales feasible even for producers with limited resources.

Expatriates and diaspora communities often seek products from their home countries, creating a demand producers can fulfill through personal networks. These communities can serve as gateways to broader markets abroad because they share their cultural preferences with local friends and contacts, thus expanding product reach.

*"The last time, I made sales through my relatives who reside in France to a few of their friends. When my relatives came here for vacation, they took the cheese. They paid for it themselves." Producer 18.*

*"We sent abroad about 10 years ago. Due to EU harmonization laws, manufacturing in Türkiye was not deemed suitable. We are no longer sending. At that time, we received many orders by telephone and from relatives. Expatriates would come, buy, and take it. We sent it by truck. We never encountered a problem" Producer 1.*

Producer 19's statement provides insight into the unique position of a producer company that has successfully navigated the transition from local to international sales, primarily focusing on the European market. The European Union has stringent regulations for dairy products, including the requirement for pasteurization. Producer 19's company has met these standards by ensuring first-

class production, which includes adhering to the required safety and quality protocols. This compliance has opened the door to the EU market, which is not accessible to producers who cannot or choose not to meet these standards. The emphasis on first-class production suggests a focus on high quality and safety standards, which are critical for gaining and maintaining access to international markets. **This commitment likely involves significant investment in equipment, processes, and training to ensure product quality and consistency.**

*"Countries within the European Union accept pasteurized milk products. The main reason for the distribution problem is that first-class production has not been fully accomplished. Until about eight years ago, we always produced for the domestic market. We have been working entirely for the foreign market for the last few years. Of course, we face difficulties in this regard. Since we make first-class production, we do not encounter any problems. They contact us via email. We have domestic and international accounts. Before the transfer, our label is translated into the destination country's language and then sent."* Producer 19.

#### **4.3. Remaining Small-Scale and in Limited Distribution Channels: Knowledge Gap, Trust, and Comfort Zone**

Small-scale producers often face challenges in expanding their production and distribution due to a lack of knowledge, building trust, and being unwilling to step out of their comfort zones (Graph 1). These factors hinder their ability to scale operations and explore new market opportunities.

**Knowledge Gap:** Small-scale producers lack the knowledge, resources, and exposure to modern practices needed to expand their operations. Addressing this gap through education and training could empower them to explore growth opportunities.

**Trust:** Trust is a cornerstone of small-scale production, but over-reliance on personal networks can hinder expansion. Building formalized, trustworthy partnerships is essential for scaling distribution channels.

**Comfort Zone:** A preference for maintaining the status quo, driven by fear of risk and satisfaction with current operations, limits innovation and growth. Encouraging incremental changes and supporting risk management could help producers leave their comfort zones.

By addressing these barriers, small-scale producers in Erzincan and similar contexts can unlock new opportunities for growth, sustainability, and market reach.

**Graph 1.** Remaining Small-Scale



#### 4.3.1. Knowledge Gap

Small-scale producers in Erzincan often rely on traditional methods passed down through generations, which limits their exposure to modern production techniques, business strategies, and market trends. This lack of knowledge creates a significant barrier to scaling up operations. Many producers are unaware of the potential benefits of branding, institutionalizing their businesses, or expanding into new markets. Additionally, they may lack the necessary equipment and expertise to meet modern production standards, such as maintaining hygiene conditions or improving customer relations.

For instance, Producer 19 highlights the challenges faced by these producers:

*"Producers in Erzincan cannot maintain hygiene conditions and lack sufficient knowledge and equipment at the production point. Also, customer relations are not strong enough."*

Similarly, Producer 7 acknowledges the desire to brand but cites limited resources as a constraint:

*"Everyone wants to brand, but our means were limited."*

The knowledge gap extends to understanding market demands, logistics, regulatory requirements, and the financial implications of expansion. Without this understanding, producers may perceive scaling up as a complex and risky endeavor incompatible with their traditional values and operational mindset.



#### **4.3.2. Trust**

Trust plays a critical role in the decision-making process of small-scale producers, particularly in close-knit communities like those involved in artisanal Tulum cheese production. Business relationships in such settings are often deeply rooted in personal connections, where trust is built over years of interaction. This reliance on personal networks ensures reliability and accountability that may not exist with external partners.

However, this emphasis on trust can also limit growth opportunities. Producers often hesitate to engage with external distributors or retailers due to fears of exploitation, breaches of trust, or loss of control over their products. Negative past experiences further reinforce this cautious approach. For example, Producer 5 reflects on the fragility of trust in business relationships:

*"Let's not call it a problem, but trust, a very sensitive emotion, can be gained through years of friendship and lost in the slightest detail. The feeling of trust holds an even more important position in business life and is one of the basic principles of working life. Unfortunately, I have always been the side that lost trust."*

Producer 3 echoes this sentiment, acknowledging the risks of over-trusting in a competitive environment:

*"No matter what type of work, how much effort needs to be put in, I do it to the best of my ability. This is a strong aspect of mine. My weakness is my concentration dispersing too quickly during work and trusting people more than necessary. We are in a period where no one should trust anyone, and I just can't manage it. Even though I think trusting people is a weakness."*

These concerns highlight the delicate balance between preserving trusted relationships and pursuing growth opportunities. Addressing these trust-related challenges requires fostering mutual respect, shared values, and formalized business practices.

#### **4.3.3. Comfort Zone**

Many small-scale producers prefer maintaining the status quo rather than pursuing growth or innovation. This mindset is driven by comfort with existing methods, fear of risk, and satisfaction with their current livelihood. Producers have established routines that provide stability, making them reluctant to venture into unfamiliar territory.

Expanding production, exploring new distribution channels, or investing in branding are often perceived as high-risk endeavors. Financial uncertainty, potential quality compromises, and the stress of managing a more extensive operation deter producers from taking such steps. For many, the perceived risks outweigh the possible benefits.

This preference for staying within familiar boundaries is evident in the comments of several producers:

*"We don't have a vehicle and prefer to fry in our own fat. We prefer to continue this way," says Producer 5.*

*"We prefer to fry in our fat," echoes Producer 6.*

*"We continued production on our scale," notes Producer 7.*

*"Because I produce and sell within my circle, I didn't strive to grow my business or brand. I do small things on my scale and prefer to continue this way," explains Producer 8.*

*"Branding is for big businesses. I'm doing this on my own," adds Producer 13.*

These statements reflect a conservative approach to business, where maintaining control and minimizing risk take precedence over growth and innovation. While this mindset ensures stability, it limits the potential for scaling operations and reaching broader markets.

## **5. CONCLUSION: CHALLENGES AND OPPORTUNITIES FOR ERZINCAN TULUM CHEESE PRODUCERS**

This article has explored the challenges and limitations that hinder Erzincan tulum cheese producers from expanding their operations, achieving global recognition, and accessing broader national and international markets. These barriers contribute significantly to the region's economic difficulties and underscore the need for targeted interventions to support the sector's growth.

### **Reluctance to Scale and Innovate:**

Producers hesitate to undertake large-scale production or invest in expansion and branding. Their focus on daily planning and short-term goals reflects a lack of strategic vision for improving production quality, market presence, and long-term sustainability. While they take pride in their traditional methods and product quality, the absence of standardized practices and oversight limits their ability to gain broader market acceptance.

### **Adaptation Within Limits:**

Despite their conservative approach, producers have begun to explore online marketing and sales channels in response to customer demand. This indicates a willingness to adapt, albeit within certain boundaries. However, their distribution strategies remain cautious, prioritizing the maintenance of the cold chain and direct sales while tentatively exploring export opportunities. The case of the sole exporting company demonstrates the potential benefits of engaging with broader markets through quality control, international marketing, and participation in trade fairs.

### **Barriers to Growth:**

The reluctance to expand and innovate stems from three interconnected factors:

- Knowledge Gap: A lack of understanding of modern agricultural and business practices.
- Trust Issues: Difficulty in trusting external partners or distribution channels.
- Comfort Zone: A preference for maintaining the status quo, which discourages risk-taking and exploration of new markets.

## **Recommendations for Sustainable Growth**

To address these challenges and unlock the potential of Erzincan tulum cheese, a multi-faceted approach is required:

### **1. Bridging the Knowledge Gap:**

Educational initiatives and training programs should be implemented to equip producers with modern production techniques, business strategies, and marketing skills. This will empower them to make informed decisions about scaling their operations and entering new markets.

### **2. Building Trust:**

Efforts should be made to foster trust between producers and external partners, such as distributors, retailers, and export agencies. Establishing formalized, transparent business relationships can help alleviate concerns about product quality, payment reliability, and brand integrity.

### **3. Encouraging Innovation:**

Producers need support to step out of their comfort zones and embrace change. This can be achieved through non-financial interventions, such as mentorship programs, peer learning networks, and exposure to successful case studies of artisanal producers who have successfully scaled their operations.

### **4. Enhancing Digital Engagement:**

While producers have started using e-commerce and social media platforms, their digital strategies often lack depth and fail to fully leverage these tools' storytelling potential. By crafting compelling narratives that highlight the cultural heritage and artisanal craftsmanship behind Erzincan tulum cheese, producers can connect more effectively with both local and global audiences.

### **5. Improving Infrastructure and Logistics:**

Addressing logistical challenges, such as cold chain management and transportation, is critical for expanding market access. Infrastructure and regulatory support investments can facilitate smoother operations and enable producers to meet the demands of broader markets.

### **6. Fostering Institutional Support:**

Collaboration between producers, government agencies, and marketing professionals is essential to create an enabling environment for growth. Policies supporting small-scale artisanal production and initiatives to promote Erzincan tulum cheese at trade fairs and international events can enhance its visibility and appeal.

### **Preserving Tradition While Embracing Modernity**

Erzincan tulum cheese producers are at a crossroads, balancing preserving their traditional methods with adapting to modern market demands. By addressing the barriers to growth and implementing the recommended strategies, stakeholders can ensure the sustainability of this unique culinary heritage. This transformation will secure local producers' livelihoods and allow the world to appreciate the rich cultural story behind Erzincan tulum cheese.

In conclusion, the path from tradition to modernity requires a collaborative and holistic approach. By bridging knowledge gaps, building trust, encouraging innovation, and leveraging digital platforms, the Erzincan tulum cheese industry can navigate the challenges of a rapidly changing world. Through these efforts, it can achieve sustainable growth, preserve its artisanal roots, and share its exceptional product with a global audience.

### **Ethic Decision**

Ethical committee approval has been obtained with decision No. E-88012460-050.01.04-157731 by Erzincan Binali Yıldırım University.

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## DECLARATIONS

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### **FUNDING / SUPPORT INFORMATION**

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### **CONTRIBUTIONS OF AUTHORS**

Seher Büşra Tokay: data collection and analysis

Mustafa Şeref Akın: Analysis, writing, editing, supervision

### **CONFLICT OF INTEREST**

The authors declare that there is no conflict of interest.

### **DATA AVAILABILITY**

The data can be provided upon request by the author(s).

### **ETHICAL STATEMENT**

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### **ARTIFICIAL INTELLIGENCE (AI) USAGE STATEMENT**

"No AI-based tools were used in this study."

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