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Local Variations of Agri-food Geographies: Regional Linkages of Konya Flour Manufacturers Along the Wheat Commodity Chains

Tarım-gıda Coğrafyalarının Yerel Varyasyonları: Konya Un Sanayicilerinin Buğday Meta Zincirlerinde Bölgesel Bağlantıları

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ABSTRACT

Agri-food geography proved itself to be a useful sub-discipline in spatializing the issues around agriculture and food. While its theoretical depth and concepts it developed and themes it chose through interdisciplinary efforts provided plentiful sets of approaches, the focus has been on particular agrifood commodities, territories and sectors. Nevertheless, it is necessary to call for such academic efforts towards undiscovered territories like Turkey, towards neglected objects of analysis such as staple foods like wheat and wheat flour, and towards relatively desolate sections of food journeys like food processing, in this case flour manufacturing. In this vein, this article first summarizes the relevant themes and concepts of the literature. Then, relying on the major arguments on conventional agri-food geographies and the unique position of Turkey in wheat commodity chains, this study examines the forward linkages of the flour manufacturing industry in Konya, the prominent industrial city of Central Anatolian Turkey. In this paper, flour manufacturers' positioning and spatial arrangements within the wheat commodity chain are illustrated on three scales and via three group of actors: channels they bridge through grain trade in global scale, retail chains in national scale, and patisseries and bakeries in regional scale. Millers' incorporation with or exclusion from these spatial arrangements reveal the uneven spatial patterns emerged in relation with their linkages along the commodity chain. Improving our understanding of the mechanisms of production and circulation of different agrifood commodities would provide new terrains for spatial researchers and policy makers in urban and regional food planning.

Keywords: Agri-food geography; flour manufacturing; regional commodity chains.

ÖZ

Tarım-gıda coğrafyası tarım ve gıdayla ilgili meselelerin mekânsallaştırılmasında faydalı bir alt disiplin olduğunu kanıtladı. Disiplinlerarası çabasıyla geliştirdiği teorik derinlik ve kavramlar, seçtiği konular bolca yaklaşım seti sunarken, odağı belirli tarımsal gıda metalarında, bölgelerinde ve sektörlerine yoğunlaştı. Tüm bunların yanında, bu türden bir akademik gayretin Türkiye gibi pek keşfedilmemiş bölgelere, buğday ve buğday unu gibi gözden kaçırılmış analiz nesnelerine, gıdanın yolculuğunda görece sahipsiz bırakılmış gıda işleme sektörüne (bu çalışma için un imalatının) yönelmesi gerekmekte. Bu minvalde, makalede öncelikle yazının ilgili konu ve kavramlarını özetlemekte. Ardından, konvansiyonel tarım-gıda coğrafyasıyla ilgili temel savlara ve Türkiye'nin buğday meta zincirlerindeki özgün konumuna dayanarak, çalışmada Orta Anadolu Türkiye'sinin önde gelen sanayi şehirlerinden Konya'daki un imalat endüstrisinin ileri bağlantıları incelenmekte. Makalede, un imalatçılarının gıda meta zincirlerindeki konumlanış ve mekânsal düzenlemeleri üç ölçekte ve üç aktör grubu üzerinden gösterilmiştir: küresel ölçekte tahıl ticaretiyle, ulusal ölçekte perakende zincirleriyle ve bölgesel ölçekte pastane ve fırınlarla kurdukları kanallar. Değirmencilerin bu türden mekânsal düzenlemelere dahil olma veya düzenlemelerin dışında kalmaları, meta zincirlerindeki bağlantılarda oluşan eşitsiz mekânsal örüntüleri ortaya çıkartmaktadır. Çeşitli tarımsal gıda metalarının üretim ve dolaşım mekanizmalarına yönelik anlayışımızı geliştirmemiz mekânsal araştırmacılar ve kentsel ve bölgesel gıda planlamasında politika geliştirenler için yeni alanlar açabilir.

Anahtar sözcükler: Tarım-gıda coğrafyası; un sanayi; bölgesel meta zincirleri.

This paper reveals some of the findings of the first author's PhD research at Yıldız Technical University and is supervised by the second author.

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1. Introduction

Throughout the past four decades, the agri-food geography literature has endeavored to extend its concepts and themes with a selective manner. In this context, scholars of this sub-discipline have shed light on specific agrifood products, territories and places, and economic actors. High value foods' (HVFs) accelerated volumes of circulation in global food trade, new agriculturalizing countries (NACs) in the Global South as supplier territories of the Global North, and/or the rising influence of transnational corporate food retail chains, in this vein, became the major topics (Maye, 2016; Watts, 1996). Such selectivity and the search for particularities have, intentionally or unintentionally, overshadowed the study of spatiality in traditional/basic commodities (staple foods) (Buttel, 2001). The rise of corporate retailers in the global food order (Dicken, 2015; Morgan et al., 2006), in particular, has led to the emergence of an empirical field, in which food processors have lost their attention as subjects of analysis.

The purpose of this paper is to recall a partially abandoned commodity, wheat, and wheat flour, as an object of study. In this context, Turkey, as an understudied territory in the agri-food geography literature, provides a fruitful case that would deepen our understanding of how food is produced, processed, circulated, and consumed locally and globally. Considering the journey of wheat from farm to table, this paper focuses on the positioning of food processors, more specifically the flour millers, in the wheat commodity chains. This section of the commodity chain in Turkey is worth to be examined due to the country's unexpected emergence as a major wheat flour exporter in the world food economy throughout the past two decades. Occupying a prominent position at the crossroads of wheat and wheat flour trade in its region, flour manufacturing firms in Turkey present an interesting case.

In this regard, flour milling agri-business in Konya, a prominent flour manufacturing cluster in Central Anatolian Turkey, is the empirical focus of this research. Through a conceptual framework derived from the main arguments of the literature on spatial dynamics of conventional food systems, a qualitative field study is conducted. The aim was to answer how, why and to what extent the Konya milling industry is positioned in global, national, and regional food networks. Furthermore, the sector's methods and routines in bridging linkages across wheat commodity chains are of concern. Miller firms in Konya engage with various food provisioning channels, from retailers and middlemen to bakeries and traders. Therefore, the study helps to illustrate the complex relationships between food processors and their forward linkages on various scales.

The remaining part of this paper consists of four sections. The first one provides a literature review. The second gives a background and the methodology. Following on from this, the third section presents our findings. The paper then sums up the main arguments and presents some policy implications, as well as suggestions for further research.

2. An Inquiry of Themes and Concepts of Agri-food Geography

The evolution of agri-food geography, as a sub-discipline, dates to the past century. Its transformation towards a more interdisciplinary status owes to a convergence with political economy perspectives (Bowler, 1987; Le Heron, 1988). The period when scholars like Atkins (1988, p. 281) proposed for a "metamorphosis of agricultural geography into a geography of food" is one of the turning points. In this regard, Marsden et. al. (1996), argued that the traditional agricultural geography literature, which largely analyzed farmyards and institutions related to the sector, needed to include contributions from the research fields outside farm gates and agriculture itself. Such an endeavor has opened fields for the enrichment of this literature. In our view, it is possible to read the trajectory of this literature within three spheres of research.

The first one refers to commodity studies. The examination of agricultural products within the framework of commodity chain systems has become one of the major lines of research in the 1990s (Buttel, 2001). Efforts to illustrate a palette of agri-food products within the context of the reorganization of the global food system, was a promising field for scholars (Arce & Marsden, 1993). The growing interest in the consumption side of the chain (from cultivation to processing and distribution) (Winter, 2003), led to a shift of focus which paved the way for studying particular commodities, subsectors, and localities. As Buttel (2001, 176) argued, this shift "had little or nothing to do with the importance of the subsector in terms of number of farmers [and] workers". With the "decline of real agricultural product prices has been greatest in the basic commodities", interest in new HVFs and their global circulation increased. On the contrary "production structures, producers, and workers in the 'basic commodities'" lost their charm. Therefore, it is the commodity chains' specificities which makes sectoral developments distinct from one another (Page, 1996).

The second sphere is territoriality of those new commodities' production and consumption. In this sense, the academia incorporated with the state of the international division of labor and its interaction with local agricultural structures (Arce & Marsden, 1993; Buttel, 2001). According to Buttel (2001) such division of labor reflected the divergent but complementary regional trajectories in the Global North and South. While NACs of the Global South take new roles in the division of labor as "new global production hubs", countries in the Global North act as the primary buyers of those new commodities (i.e., fresh, and durable foods circulating with the help of improvements in logistics and retail such as new cool chains). NACs in this vein, "focus on growing for the global market at the expense of staple products required for the domestic market" (Maye, 2016, p. 307). It is worth mentioning that, in this dual picture, the literature is far from dictating worldwide and uniform definitions, but rather involves, as Watts (1996, p. 237) clarifies, "hybrid and multiple trajectories of rural and agrarian accumulation take place in global sites constituted by complex social networks". Concepts like "globalized rural industrial districts", "agricultural districts" (Watts, 1996), "agri-food districts" (Ward & Almås, 1997), "agricultural regions" (Page, 1996), "territorial production complexes" (Whatmore, 1993), and "hot spots" (Maye, 2016) are referred to various spatial arrangements of agribusinesses.

The third sphere is about economic actors in agrifood commodity chains. For a framework with generalizable characteristics of conventional agri-food geography, Morgan et. al. (2006, p. 69), present a very useful set of trends. According to these authors, agri-food manufacturers are no longer the sole actors of control across the economic landscape. On the contrary, global mercantilist retail capital possesses new mechanism of "shifting and trading goods as well as producing and transforming them". Furthermore, the rising complexity of agri-food logistics shapes the quality parameters and scale of agricultural production. This leads to stiff competition among retailers' suppliers, where there is questionable construction of market prices and no price discovery (Dicken, 2015; Maye, 2016). Meanwhile, transnational agribusinesses and retailers both control the production and distribution of agri-foods through complex supply networks. Consequently, some actors of agribusiness find themselves in "new forms of uneven development between those participating in the global and regional networks and those who are not" (Morgan et al., 2006, p. 70).

In addition to all these spheres of research, the production, circulation and consumption of a basic commodity, the wheat, presents a different international division of labor. Inspired by the recent work of González-Esteban (2018), we might provocatively assert that the global wheat trade is a matter of dependency and self-sufficiency on national scales. In this context, the author offers five categories among food importers/exporters: (1) "Established exporters" (USA, Canada, Australia, New Zealand, and France), (2) "Emerging exporters" (post-Soviet Bloc, Southeast Asian and South American countries, (3) "The (barely) self-sufficient" countries (mostly Asian), (4) "Rich food importers" (Persian Gulf countries, Japan, South Korea and majority of EU countries) and (5) "Poor and insecure countries" (Mostly in Central America, Africa and Asia) (González-Esteban, 2018, p. 13). In this evaluation, Turkey is considered under the third category. The country's wheat self-sufficiency ratio between 1966–2010 slightly increased and remained stable. Such a trajectory, in one way or another, put Turkey among those countries of exceptions, which took the advantage of green revolution during the post-war era and coped with the problems of sustaining domestic food provision (González-Esteban, 2018).

In parallel with global grain circuits, the world geography of wheat flour trade has its continuities and changes. According to the data presented by FAO (1999; 2009) Turkey has become one of the prominent territories of wheat flour export. Then the question arises if Turkey is represented within the group of countries that are barely self-sufficient, and the data illustrates its self-sufficiency levels becoming only slightly better in a half century, how come it became one of the engines of flour milling and surprisingly a top flour exporter of the world market in 2022 (FAOSTAT, 2023)? At this point, we believe that the answer to a question as such might benefit from the assistance of the contemporary agri-food geography literature. Differently put, examining the variations of wheat commodity chains on various scales is of importance.

Depending on the above-said arguments, this research conceptually and empirically situates flour manufacturing within the linkages of wheat commodity chain. Inspired by the illustrations of Ahmed et al. (2013) and Ahmed et al. (2014), Figure 1 below represents the overall functioning and fundamental components of the wheat commodity chain at various scales. It highlights wheat processing, milling and packaging to emphasize the position of flour manufacturing within the chain. In this paper, we confine ourselves with forward linkages only.

The research, in this sense, focuses on flour manufacturers in Konya, Turkey. It examines their forward linkages. In this setting, the relationships built with retailers, merchants, middlemen and bakeries are the examined linkages. The field survey is designed to answer two main questions: (1) How, why and to what extent was the Turkish milling industry positioned in global, national, and regional food networks of wheat recently? (2) Has Konya millers' positioning in food networks of wheat recently changed, and if so, how?

3. Background and Methodology

Scholars examining this sector in Turkey suggest some general evaluations. One common feature is the consistent condition of flour milling industries' idle capacity. This was an undesired byproduct of the over-supportive government policies. Another feature of the sector is the chronic low-quality domestic wheat production. This particularly brings difficulties for export-oriented establishments and food provision for local consumers. A considerable share of SMEs has inadequate financial and human resource capacities (Duru et al., 2019; Günalp et al., 2002; Karlı & Gerger, 2000; Yurdakul & Aktaş, 2001). Duru et al. (2019) argue an absence of a robust national policy, which has made the country vulnerable to possible food crises by depending more on wheat imports. All these issues may be regarded as signs for Turkey to lose its barely self-sufficient position on wheat in the future.

As of 2023, there are 599 firms in Turkey under the category of production of wheat and meslin flour. This figure rises to 1443 when we think of the broader category of manufacture of grain mill products (TOBB, 2023). However, it is challenging to access comparable, traceable and periodical statistical data

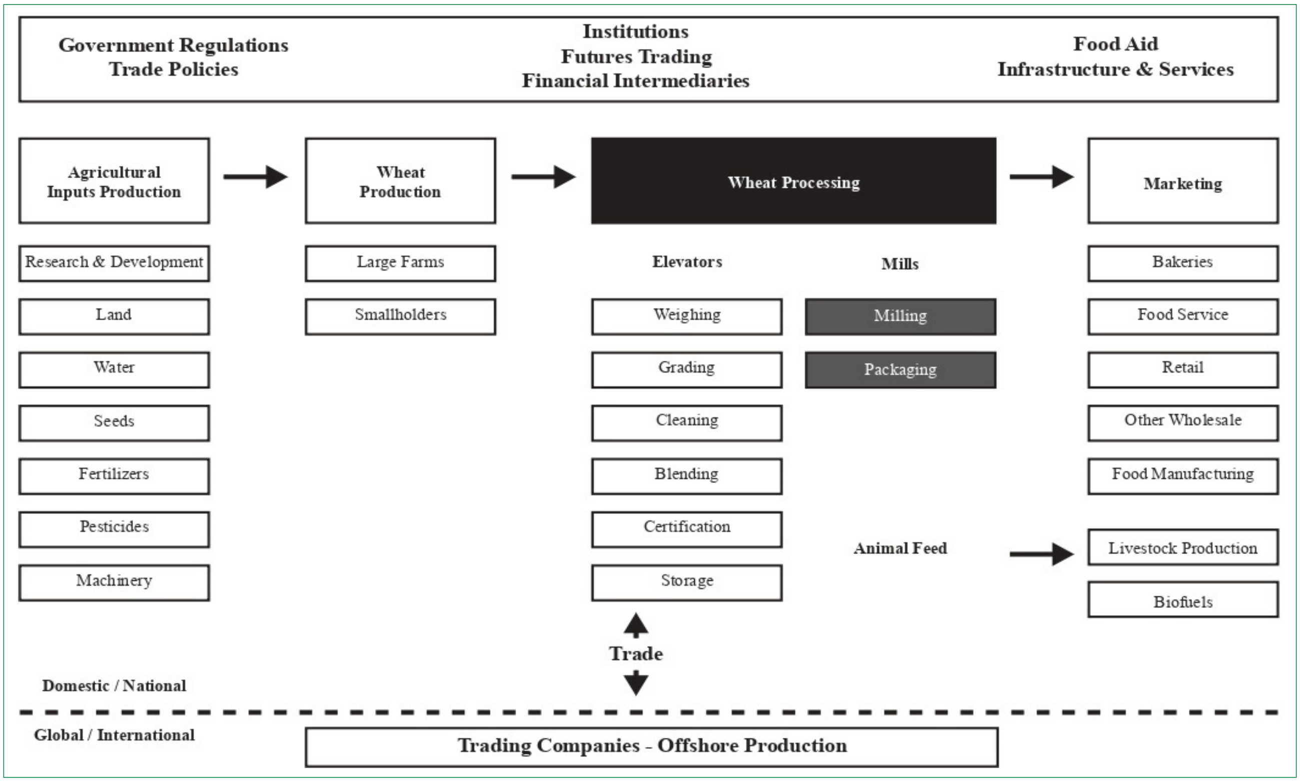

Figure 1. Wheat commodity chain.

Source: Adopted from Ahmed et al. (2013) and Ahmed et al. (2014).

to assess this sectors' historical development. At this point, we need to rely on the previous works of scholars. According to Yurdakul & Aktaş (2001) and Günalp et al. (2002) he national extent of flour manufacturers during the mid-1990s, roughly consisted of firms between 700 and 800. This figure fell to 677 in 2017 (Duru et al., 2019) which expresses a consistent shrinkage in the number of manufacturers throughout the past two decades of transformation.

From a spatial point of view, the sector displays a clustering in various regions. The most prominent clustering is in Central Anatolia, with 144 firms covering 24% of the entire economic landscape. Southeastern provinces follow this region with 125 firms (21%) and Thrace with 69 establishments (TOBB, 2023). Within Central Anatolia, Konya province alone hosts 41 milling firms, being the second after Mardin in the Southeastern border of Turkey. As far as the manufacture of grain mill products (10.61 NACE Code) is concerned, Konya hosts 78 active firms.[1]

It is difficult to clearly illustrate the spatial division of labor, or the segmentation among about 40 firms in this landlocked province of Konya. Nevertheless, according to the semi-structured interviews conducted for this research, around 30 firms have a considerable share in regional and national markets of wheat flour trade. Furthermore, 5 firms are considered as prominent actors of the region, building business ties with global and national trade. In fact, according to the Central Anatolian Cereals, Pulses, Oil Seeds and Products Exporters' Association (OAIB), 8 Konya flour manufacturer firms are registered as suppliers (exporters) of flour of common wheat and spelt. Another local NGO (the Association of Central Anatolian Flour Industrialists - OAIB) has 30 members of flour miller firms in Central Anatolia. A great majority of the OAUSD members (21) come from the Konya province.

A qualitative interview method is employed to answer the questions posed at the beginning of the paper. For this purpose, in order to understand the viewpoint of flour manufacturers in Konya, 8 semi-structured interviews were conducted in November 2022. Interviewees were selected via snowball sampling. Each interview took about an hour. Findings mainly derive from two survey questions.[2] These are raised to the interviewees to distinguish their elabora-

[1] Statistics differ from each other according to their origin of database. A scan in the Konya Chamber of Commerce database reveals 48 registered firms (Konya Chamber of Commerce, 2023). Lonca database powered by the Ministry of Industry and Technology presents 57 firms (Lonca, 2023).

[2] Question 1: Should you explain your production process beginning with purchasing wheat to selling wheat flour? From where, whom, how often, how much and in what quality do you purchase wheat? To where, whom, how often, how much and in what quality do you sell your flour? Question 2: Who are the main determined of the bargaining conditions among the actors you work with? How and why they gained this bargaining power? Whose power diminished, whose are increased and whose remained the same?

tions on trade linkages with foreign trade merchants, retailers, bakeries, and middlemen. The answers are decoded and processed by using qualitative data analysis software (MAXQDA). Texts of interviews grouped under a coding system, consisting of 7 code groups and 36 codes. This paper uses 16 of these codes.

4. Findings: Konya Flour Milling's Connections within Wheat Commodity Chains

Prior to unpacking flour millers' connections in various scales, it is worth presenting some general information about our interviewees. To begin with, they all are active in the wheat commodity chain, with different roles. Interviewee 7 for instance, is an expert on grain crops and has a representative role in a sectoral NGO. His social connections provide him the opportunity to observe and experience the flour manufacturing in this sector. Interviewee 1 on the other hand, had a long experience in flour manufacturing until the turn of the millennia. Having experienced severe financial difficulties throughout the 2000-2001 economic crisis, he shifted his business to grain trade. His next occupation as a grain wholesaler gave him the opportunity to observe the sector and the evolution of the wheat commodity chain first as a miller, then a trader. The remaining interviewees are active millers. Three of them (Interviewee 2, 5 and 6) are long-time managers in their firms. Others (Interviewee 3, 4 and 8) are either owners or first-hand founders of their firms.

Among those six active firms, two of them are prominent actors in Konya milling industry, possessing a wide network that can reach global and national markets. Four of them, however, are regional and national players. This research focuses on the forward linkages of flour manufacturers along the wheat commodity chain. Therefore, the following sections examine three main groups of actors that these manufacturers have connections with: (1) Merchants and international middlemen, (2) national retailers and (3) local middleman and bakeries. Millers' relationships with each group are discussed below.

4.1. Building Ties with Global Wheat Networks

According to interviewees' indications, global wheat networks manifest themselves in different spatial arrangements of transportation. In this regard, we observed two different types. The first one refers to the ties that stem from millers that engage in overseas trade. We name actors of this type as port users. The primary destination of international trade here, is mainly directed towards the Global South, especially African countries. These connections are established predominantly via professional international brokers. The brokerage paid for brokers ensures constant flow of orders and safety of shipments. Furthermore, brokers play a role in the absence of acquaintance between two parties. Interviewees 2 and 3 indicate how such a mechanism is formalized by various financial and logistical means. According to their experience, overseas trading appears to be ensured by various tools, such as letters of credit (*akreditif*) from the insurance companies and foreign trade banks or bills of lading (*konşimento*) from the logistics sector. These mechanisms aid in the formalization of relationships between port user flour millers and their international clients.

The second type of spatial arrangement refers to the connections that are bridged through cross-border trade. We call these actors border gate users. Different from the above-said arrangements, connections of this type are established mainly with the help of traditional agents and not to mention the millers' personal connections. Southeastern bordering territories, especially Iraq and Syria are the main destinations. Interviewee 8, distinguishes traditional agents in international trade from professional brokers, stressing a knowledge asymmetry on agribusiness in favor of the former. In other words, in some cases, the experience of the self-educated comes before that of the formal training of the lettered. Our findings illustrate how these mechanisms are realized within the absence of a professional agent. They are largely informal, bureaucratically less complicated and based on trust. In this regard, cultural affinity does not only ease the connections, but also reinforces historically established trade relationships with the bordering countries.

Our interviews also reveal some clues considering how and why some export-oriented millers had to refrain themselves from global wheat commodity chains. Spatial arrangements lead flour manufacturers to position themselves as a port user or a border gate user. In this context, we might argue, mechanisms of overseas and cross-border trade, combined with spatial proximity to the markets, work against millers in landlocked regions like Konya. These millers must bear considerable transportation costs to hold on to the global wheat commodity chains. For this very reason, some millers, like Interviewee 8 did, even moved its export-oriented production facility to the port city of Mersin.

4.2. Building Ties with National Food Retailer Chains

Different from the abovesaid global connections, national scale wheat supply through retail chains portrays a relationship characterized with power relations and consequent spatial logistical arrangements. As regards to the former, it is possible to assert that national retailers in Turkey have a dominant position before millers. In other words, power asymmetry works in favor of the supermarkets, especially for those who possess greater market shares. These supermarket companies,[3] numbering around three, have more than

[3] The rise of corporate retail from the 1980s to the beginning of the new millennium in Turkey is timely documented by scholars (Yenal, 1999), and more recent studies mapped out the expansion and rising influence of supermarkets (Atasoy, 2013).

2000 stores each with full national coverage (Table 1) and are capable of exerting their commercial expectations to millers.

These expectations embody the quality requirements, being in accord with the frequency of orders and having the financial capacity to tolerate delayed payments (Dicken, 2015). Our interviewees briefly explained the general functioning of meeting quality requirements. The ordered wheat flour in this vein should be packaged suitably for supermarket shelves with retailer's own brand name and image, and stored by the flour manufacturer ready for transport. Interviewees 1 and 2, in particular, underline the relatively high investment costs of adjusting flour manufacturing plants for smaller flour packages. For any miller who wants to enter such a network, this matter inevitably raises the product price and makes the miller an undesirable option for the retail chains. Together with the obligation to quicken the preparation of orders, purchasing power and flexibility to delay payments, in some cases up to one month, present a highly controlled buyer-driven contracting relationship (as interviewees often called it *fason kırdırma*). In this context, millers are not captives of their business partners, but are almost the subjects who must accept playing the game by the supermarkets' rules (Maye, 2016). Abovesaid issues function as a filter in flour millers' attempts to enter those retail provisioning channels.

Spatial logistical arrangements, however, are basically interwoven within a delicate balance between supermarkets and flour millers. The corporate retail sector widens its sourcing capacity as it expands its geographical reach. Thus, it becomes capable of selecting its wheat flour suppliers among various options in its target regional markets. According to the statements of flour manufacturers, retailers' distribution networks in this sense, are the fundamental elements of bargaining power across the wheat commodity chain.

Suppliers of national retailers are the ones who can successfully meet the demands of supermarkets: stocking the shelves of thousands of their locations on a daily basis, changing the quantity and frequency of orders for manufacturers in tones, loads, trucks, and weeks. In this context, our findings align with the writings of Morgan et al., p. (2006, p. 67): Concepts like just-in-time delivery, shelf life or category management are corporate retailers' spatio-temporal strategies "to circumvent or short-circuit the traditional manufacturers and to develop sophisticated supply chain arrangements with specific regional production 'platforms'". A similar effort seems to be in operation in our case as well. In the meantime, the sourcing strategy of national retailers has regional variations too. Although these retail chains have strong purchasing power that stretches towards the national territory, their quest for optimal logistical marketing led them to supply products from millers in nearby regions.

> *"BİM [the largest retailer in Tukey] does not buy from a single source/supplier… For its locations [supermarkets] in Central Anatolia, let's say, it buys from Selva [in Konya]. For its locations in İstanbul, who do they have there? It buys, let's say, from Eriş [in Silivri, Istanbul] … They are of course trying to avoid transport [costs]. In terms of sales, they do have a serious role in setting the price, they do indeed"* (Interviewee 5).

In explaining transnational food retailers' extent of power to control quality standards and protocols, Morgan et al., p. (2006, p. 68) raise the fact that actors are often "capable of sourcing globally but selecting spatially". In this case, we might adapt their saying to our case as follows: national retailers are capable of "sourcing nationally and selecting regionally". For flour manufacturers, locating at an arms-length distance to retail food chains is of primary importance. In other words, local transportation costs do matter for both parties.

4.3. Building Regional and Local Ties with Patisseries and Bakeries

In contrast to the previous narratives, here we have a wider, denser, and more complex business network. In this network, flour millers' buyers are numerous, significantly vary in terms of their size, display differentiated expectations regarding the end-product and geographically dispersed. Flour manufacturers' operation diagrams, equipment, types of wheat they use, marketing strategies, and related spatial arrangements are all shaped with respect to the needs of their customers. According to the Lonca database (2023), there are 8189 registered firms under the industrial code of "Manufacture of bread; manufacture of fresh pastry goods and cakes". Such an economic landscape portrays a two-fold segmentation.

The first segment in this vein is operationalized through connections between high capacity/quality flour manufacturers and patisseries. As the commodity chain stretches towards distant regions of the national territory, transactions become more professional and operationalized via various agents of middleman, such as wholesalers, marketers, sales representatives, distributors, and dealers. The diversification mainly results from the capacities of patisseries as well as the palette of their flour blends.

In this context, wholesalers keep the flour supply in function since millers in this category are too small to engage in supermarket chains, but too big to personally deal with each patisserie. Thus, logistical limits of small-scale bakeries of this type calls out for the need of middleman like wholesalers. Some on the other hand, expect a specialized service of flour supply, with specific blends and related products. At this point, marketers, sales representatives, distributors,

Table 1. National and regional extent of food retail chains in Turkey

Retail firm	Regional extent of stores	Number of stores
A101	81 provinces	10.001
BİM	81 provinces	8.333
Şok	81 provinces	7.882
Migros	81 provinces	2.302
CarrefourSA	51 provinces	714
Hakmar	5 provinces	600
Onur	5 provinces	155
Metro	27 provinces	37
Üçler	1 province	7

Source: Adapted from Food Retailers Association members catalogue (GPD, 2021).

and dealers serve as the intermediaries in the functioning of the national and regional wheat flour provision. Their primary role is to accomplish the fine-tuning of the required flour blend and other supplements. Through a combination of these agents at hand, these millers orientate towards a number of focus marketing regions they prefer.

The second segment refers to a terrain of matching between low-capacity/medium-high quality flour manufacturers and bread loaf producing bakeries. Functioning on a more local scale, connections are built through the personal efforts of millers. In other words, as long as the scale of food provision remains local, ties become more informal and casual. This is a trust-based relationship. To receive bakeries' recognition and reputation, flour millers offer free samples during their first visits to their potential customers. Once a deal is set, the miller might even have to tolerate charging in the second order. As a reward for his endeavors, the miller gains a reputation in the market. This reputation is of importance in the eyes of bakers. As indicated by Interviewee 5, bakers in the course of their work life develop particular baking habits and usually attach themselves with particular flour blends. They also bring their routines with them as they change the bakery they work for. In other words, the millers' reputation travels across the economic landscape along with bakers.

To sum up, efforts to build ties along the wheat commodity chains through ports or border gates in global scale, through logistical operations of retailer chains in national scale, or across the vast network of patisseries in regional scale are the spatial manifestations of different mechanisms and routines. These mechanisms have their own requirements and challenges for millers to engage with. Undoubtedly, there might be some hybrid cases, meaning that a miller can employ ties with global agents and national retail chains simultaneously. In addition, we might even expect millers' metamorphoses, extending or losing their presence among these three types of spatial arrangements in time.

5. Conclusions

There are two conclusions of this paper. The first one is related to the wider debates in the sub-discipline of agrifood geography. This discipline throughout the past four decades has experienced a shift of focus by privileging the journey of food from farm to table, rather than looking what's happening inside the farm gates. Thus, political, economic, ecological and social issues that crosscut agri-food sector have gained importance. The discourse has particularly revolved around various concepts ranging from international division of labor, food regimes, agri-food commodity chains to local variations of global food systems (Arce & Marsden, 1993; Buttel, 2001). Such an enrichment of interest led to curiosity for new themes and geographies. Among them are, the emergence of corporate power in the shaping of new food regime, the rise of NACs in the Global South, incorporation of HVFs into the global commodity circulation and flourishing civic food initiatives across the world.

Scholars of this sub-discipline highlight the need to examine agri-food geographies in different localities and contexts of different commodities (Buttel, 2001; Page, 1996). Thus, this paper contributes to the above-said body of work by bringing some empirical evidence from a less explored locality (Turkey), an undermined commodity (wheat) and a relatively understudied section of the journey from farm to table (flour manufacturing). Turkey in this vein, since the second half of the 2010s, has been experiencing decreasing levels of wheat self-sufficiency, but steady levels of domestic wheat production and more importantly increasing levels of wheat flour exports towards the wheat dependent territories of the Global South. The wheat flour exporter position of Turkey is directly linked with its rising wheat imports. Such a combination makes this territory unique in the global wheat commodity chains, and we argue that this positioning have some spatial implications.

This leads us to our second conclusion. Our findings in Konya miller industry illustrate a relationally interwoven scalar spatiality. We grouped the spatial operations of local flour manufacturers according to their forward linkages in the wheat commodity chains: Towards (1) foreign grain trade, (2) supermarket chains, and (3) patisseries and bakeries. These three forward linkages correspond to global, national and regional scales. Each scale portrayed different spatial arrangements and presented the dynamics where flour millers incorporated with or excluded from. Relational character of those linkages is what embodies the incorporation or exclusion. Terms dictated by buyers or logistical reasons of food provision seem to have shaped the relationality and lead to shifts in different scales of spatial arrangements. So, conventional corporate functioning of agri-food geographies is not predetermined. Moreover, our findings call, once again, to think of such spatial arrangements beyond harsh dichotomies. The reality is simply far more complex than any rigid categorization.

With regard to policy implications, this paper suggests that sustaining access to adequate, available and healthy food in cities and regions necessitates a better understanding of how food circulates across places of production and consumption, and through sectors of agribusinesses. Therefore, policymakers in urban and regional food planning should appreciate and consider the variations in agribusinesses, before executing one-size-fits-all measures. With regard to further research, on the other hand, it is crucial to extend the agri-food research with comparative work of spatial studies. Bringing out countries that might experience similar trajectories with Turkey would widen spatial research of agri-food geography. Similarly, the positioning of other actors across the wheat commodity chain, such as wheat farmers, licensed warehouses or wheat flour processors in other localities requires more attention.

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