

TURKEY'S FIRST ORGANIC BAZAAR

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Abstract

This paper explores the workings of a national open air marketplace solely for certified organic products. We use net sales and participation data collected at the marketplace, unstructured interviews with farmers and consumers, and participant observation. The sales figures display seasonality and suggest an expansion in the domestic organic sector after the entry of the organic bazaar to the lives of Istanbul's inhabitants. We compare the organic bazaar to the conventional fresh produce market in terms of food safety and quality, price, wholesale market feature, transactional proximity and the effectiveness of transportation systems used in each setting. We point out similarities to and differences from countries with large developed organic markets and make policy suggestions. We also highlight possible research questions arising from the network of farmers, processors, warehouses and retailers, we provide the design of further research.

Keywords: Organic foods, Organic agriculture, Farmers' market, Food logistics

Introduction

Conventional agriculture is known to have several adverse effects on nature and society: widespread use of Agrochemicals pollutes water, air and soil (Fukuoka, 1978) and leaves residues in food products (Rembiałkowska, 2007); loss of biodiversity and use of genetically modified organisms harm plant, animal and human life, (Aktar & Ananias, 2005); and the monoculture structure of large scale conventional systems causes economic problems for farmers (Altieri & Rosset, 1996). The solution to such problems can be found in organic agriculture. Firstly, organic farming performs better than conventional farming in relation to the majority of environmental indicators such as plant, faunal, species diversity, soil and water contamination as well as resource use, (Stolze et al., 2007). Secondly, organic farming is more labor intensive than conventional farming; labor requirement is more on organic farms, about twice the conventional farm value on average, (Morison et al., 2005). In

addition, organic farms' use of input energy is lower than conventional (Gundogmus, 2006). Consequently by reducing unemployment and the dependence on off-farm inputs, organic agriculture could provide a solution for the economic problems of farmers. Finally, no substantial yield differences between organic and conventional agriculture are found in the developed world whereas in developing nations, yields of organic agriculture surpassed those of conventional methods, (Badgley et al., 2007). Hence, organic agriculture presents a solution to environmental and socioeconomic problems of today by increasing yields in low-input areas, increasing income, reducing costs and providing employment for farm families; conserving bio-diversity and natural resources on the farm and in the surrounding area, and producing safe and varied food, (IFOAM, 2002).

Willer and Yussefi, (2007) report an increasing trend in the production and marketing of organic foods worldwide. Several European Union Member States have set ever increasing target levels¹ of land to be dedicated to organic farming, often 10-20% in 2010. On the civil society side, International Federation of Organic Agriculture Movements (IFOAM) is a worldwide umbrella association uniting more than 750 member organizations in 116 countries. Organic agriculture in Turkey is developing as well.

Table 1 shows the progress of the sector from a production perspective; the hectares dedicated to organic agriculture and its share in total arable land in Turkey more than doubled from 0.8% in 2005 to 2% in 2010 when compared with the whole agricultural land (including meadows and pastures and excluding forest area) of 39 million hectares. The same progress cannot be observed from a consumption perspective. 2009 data² show that the proportion of Turkey's organic agricultural land to the world total is 9 to 1,000; that means almost 1% of the organic agricultural land of the world is in Turkey. In contrast, the same data source reveals that when 2009 domestic sales of organic products in Turkey is compared to the world total, the proportion³ becomes 9 to 100,000 undergoing a severe drop to less than 0.01%. These figures suggest that about 99% of organic production in Turkey is being exported. Another indication of the underdeveloped state of the domestic sector is the unavailability of data; although figures and studies regarding organic production can be

¹ For more information on EU agriculture policy, see the assessment of the European Environmental Agency (EEA, 2005).

² Compiled by FiBL and IFOAM <http://www.organic-world.net>. We use 2009 figures because Turkey's domestic organic sales data were not available for 2010.

³ The world total is obtained by summing domestic organic sales figures for countries that could provide these pieces of data and hence is a little lower than the true figure making the true proportion of Turkey lower than 9 to 100,000 in actuality.

found⁴, figures regarding domestic consumption and sales are not available beyond 2009. Besides, these quantitative indicators, consumers, producers, brand owners and activists, in short all actors of the organic sector in the country complain about the limited availability and high prices of organic products and the underdeveloped state of the domestic sector.

Table 1: Organic agriculture data for Turkey including conversion land and excluding meadows, pastures and forest area.

Year	Number of products	Number of farmers	Land used for organic agriculture (ha)	Production quantity (tons)
2002	150	12,428	89,827	310,125
2003	179	14,798	113,621	323,981
2004	174	12,806	209,573	378,803
2005	205	14,401	203,811	421,934
2006	203	14,256	192,789	458,095
2007	201	16,276	174,283	568,128
2008	247	14,926	166,883	530,225
2009	212	35,565	501,641	983,715
2010	216	42,097	510,033	1,343,73

Source: http://www.tarim.gov.tr/Files/Images/organik_Tarim/2010genelorganik_tarimsaluretimverileri.doc, accessed 25 January 2012.

To improve the state of the domestic sector, Bugday Association, a non-governmental organization (NGO) supporting ecological living, brought together all stakeholders and established an organic open air marketplace in Istanbul in June 2006 for the first time in Turkey which this paper is a study of. Being the liveliest city of Turkey and inhabiting more than one fifth of the country's population, Istanbul is also the location where most of the consumption takes place. Therefore this first organic marketplace, besides being a much needed sales channel for farmers and a meeting place for farmers and consumers, had a mobilizing effect on the sector.

The major contribution of this work lies in displaying the trends in Turkey's first organic market and in providing a comparison with the conventional fresh produce market. By analyzing net sales data collected by Bugday, we display the growth trend in organic food sales and the number of participating farmers. We conjecture that this first organic bazaar caused an expansion in the whole domestic organic sector. Participant observation in meetings of the committee for the development of the organic sector and unstructured interviews with farmers, consumers, and NGO employees performed at the organic bazaar, is used to understand the workings of the marketplace. To determine the differences from the

⁴ Turkey is mentioned as a producer of a variety of organic products such as olives, grapes, raisins, citrus fruits, apples, pears and medicinal plants. It is one of the leading producers of organic cotton in the world and is an important organic wheat producer (Willer & Kilcher, 2009).

conventional fresh produce market, we utilized participant observation and unstructured interviews with one conventional fruit and vegetable middleman and two traders at the weekly neighborhood open air marketplaces where most of the conventional fresh produce trade takes place. Although there are several studies on organic agriculture comparing yields, energy and labor with that of conventional agriculture and on the potential of the organic sector both in Turkey and in the world, (Acs et al., 2007; Baourakis, 2004; Demiryurek et al., 2008; Rehber and Turan, 2002; Sahota, 2007), we are not aware of any work that studied the first organic bazaar in Turkey.

In the remainder of the paper, we give a brief history of organic agriculture in Turkey, explain the role of the government, describe regulation and control systems and review relevant literature. Comparing the situation in Turkey to some of the countries with developed organic markets, we make policy suggestions. Next, we provide details on the composition of the marketplace and report the findings of a pilot data analysis conducted, displaying growth and seasonality in organic produce sales. We compare the organic bazaar with the conventional fresh produce market where we introduce the concept of transactional proximity to describe the closeness of farmer and consumer. Finally, we list the limitations of the current study and propose research to further examine the organic sector. Throughout the paper we use the terms bazaar, marketplace, market or organic market interchangeably to refer to the organic bazaar.

Organic Agriculture in Turkey

Until the entrance of Agrochemicals to the country in the sixties, farming practices in Turkey had a traditional nature and were close to be in compliance with organic farming principles of today. Driven by exports, to Europe in particular, certified organic farming in Turkey started with the production of dried fruits for a German company in 1986, (Rapunzel, 2012a; Rapunzel, 2012b). Since then, organics have been growing in the country (Karakoc & Baykan, 2009) and today, there are more than 40,000 farmers practicing organic agriculture, see Table 1. Today, there are companies producing, processing and trading organic products as well as NGOs promoting organic agriculture. Research is also conducted to understand the opportunities and potential (Aktar & Ananias, 2005) of the organic sector, the prospects and challenges of organic food production and marketing (Rehber & Turhan, 2002; Kenanoglu & Karahan; 2002; Ozbilge, 2007), to compare organic yields in Turkey with conventional methods (Gundogmus, 2006) and to plan organic agriculture in the country via linear programming (Demir, 2007). Still, the advances of the sector are far from realizing the

country's potential given her diverse plant and animal life very suitable for organic agriculture.

The organic agriculture movement worldwide started in the thirties and in 1991 the EU passed the first regulation (Aktar & Ananias, 2005). A legislation following in 1992 imposed conditions on the countries exporting organic products to the EU. Being one of these countries, Turkey had to develop her own regulations for organic production, the first of which was issued in 1994 and updated in 1995 incorporating penalties for fraud (Kenanoglu & Karahan, 2002). Finally in 2004, the Turkish Parliament passed the law on organic agriculture and the marketing of organic products. Two committees, one of advisory nature and the other responsible for promotion and governance, led by the Ministry of Food, Agriculture and Livestock, work on developing the organic sector. The ministry delegates the control and certification task of farmers and other producers to independent bodies, the control and certification companies, of which there are 23 currently authorized⁵.

Considering the economic problems of smallholders, organic agriculture principles such as the sustainability of farm families and rural communities, regional development, and culturally rooted food production systems, should have been particularly important for Turkey. Still, the limited driving force behind organic production in Turkey remained to be exports. The demand for organic products in the EU had increased due to their acceptance into the lives of ordinary European citizens as a result of a healthy life philosophy. Aktar and Ananias (2005) argue that by utilizing this trend in Europe and her organic capacity, Turkey could become the organic food reserve of EU. Bakirci (2005) claims that organic farming is a potential solution to the problems that could arise during the negotiations with the European Union as a result of the high fraction of the population employed in the agriculture sector when compared with EU states. To fully utilize her organic potential, Turkey needs to adopt a policy similar to many governments in the EU, providing subsidies to farmers of organic produce (Bakirci, 2005; Demiryurek, 2004).

A comparison of the state of organic agriculture in the world and that in Turkey shows that the country's share in the world organic market is very small (Demiryurek, 2004). To draw on the country's potential, Demiryurek (2004) argues that the domestic market for organic products needs to be developed which will then expand organic production. Although her geographic location, climate, biodiversity and the quality and fertility of her soil make the country very suitable for organic agriculture; organic products are not on the agenda of the

⁵ Ministry of Food, Agriculture and Livestock.

majority of Turkish citizens. Here we need to emphasize that only a tiny fraction of organic production in Turkey is consumed domestically⁶. Ozbilge (2007) lists the constraints impeding the development of the sector as unfavorable Turkish agriculture policy, insufficient financial support, bureaucracy and paperwork for converting farmers, expensive costs of inspection, lack of consumer recognition, high retail prices of organic products, the limited number of sales channels and availability of organic products. An analysis of Turkey's legal infrastructure in (Kenanoglu & Karahan, 2002) reveals that for the development of the sector, policy modifications such as persuading producers to switch to organic, training farmers, establishing marketing centers and cooperatives to improve domestic sales and determining proper price premiums, are needed with the support and the sponsorship of the ministry in all stages. The organic bazaar in Istanbul is a real attempt to relieve some of the consumption constraints and to expand the organic sector in terms of size, variety, and quality.

The largest organic markets in the world are in Europe and North America with demand being concentrated in the most affluent countries where citizens have high purchasing power, a high level of education and awareness of organic products (Sahota, 2007). The majority of organic food sales in these developed markets is through mainstream retailers and increased distribution is a driver of market growth. To properly develop the domestic organic market in Turkey, we suggest that the government educates and persuades businesses and provides incentives. Only then mainstream retailers would allocate more space to organic products and could take advantage of increased distribution and availability.

Methodology

Research reported in this article is compiled from three sources of information: (i) sales and participation data gathered at the bazaar by the NGO; (ii) unstructured interviews with farmers, middlemen, consumers and the NGO members; and (iii) participant observation.

For the analysis of sales and participation data, we chose the time frame between June 2006 and November 2009, due to the simple reason that the second organic bazaar of Istanbul is opened in December 2009, a fact that would drastically change the demand patterns of the first bazaar. Each week since June 17, 2006, the first day of Istanbul's first organic bazaar, data on the amount of fresh produce transported to the market and on actual sales has been

⁶ Fresh produce sales in one organic bazaar in one winter week of 2011 is around 14 tons, see <http://ekolojikpazar.org/>. Considering the fact that there are 9 organic marketplaces in Turkey and allowing for about the same amount of organic produce to be sold via other channels, 20,000 tons is an upper bound on the amount of organic fresh produce traded annually in the domestic market.

collected. Data collection is done by the volunteers of the overseer NGO to be primarily used for control purposes; any amount sold by a farmer above the production capacity is a signal of potential fraud. As the owner of the organic market project, Bugday is responsible for ensuring food safety and reliability and all participants of the organic market agreed to provide data on transportation and sales quantities. There are more than 180 weeks between June 2006 and December 2009 and as the weeks advanced, so did the number of participating farmers, from a mere 10 to about 70. As a result, this created a lot of data to deal with. Since the data needed timely pre-processing to obtain sales quantities, in this preliminary study we used quota sampling to choose representative weeks.

The unstructured interviews are carried out with five farmers, three middle men, ten consumers and three Bugday employees; the bazaar coordinator, the communications coordinator and the chairman of the board. The interviews took place at the bazaar on Saturday mornings at the stalls with the farmers and middlemen; at the eating area with consumers while they were having breakfast. We met with Bugday employees both at the bazaar and at the association for the interviews. The questions asked differed depending on the entity interviewed but include the following subjects: organization and administration of the marketplace; reasons and consequences of the price premium for organic foods; bazaar features such as the wholesale market property and the proximity of the consumer and producer; the change observed in the availability of organic products at the bazaar and at other retail centers after the launch of this first bazaar.

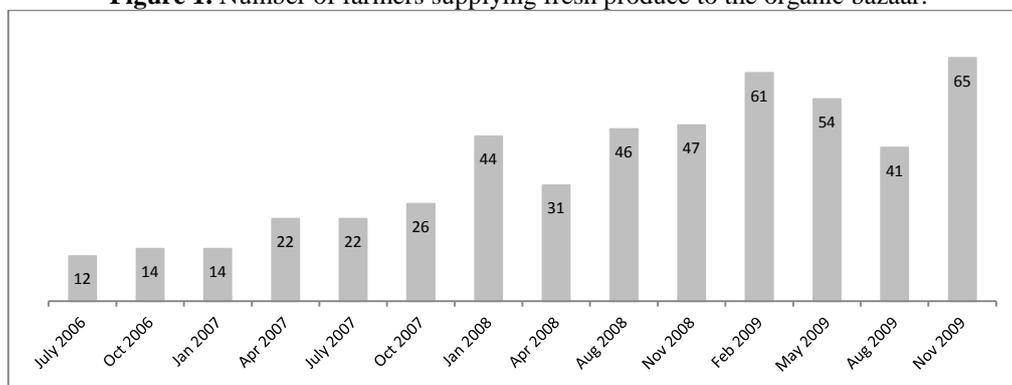
Participant observation at the bazaar, at committee meetings and at conventional neighborhood marketplaces is also utilized to understand the workings of the organic bazaar and to make a comparison with the conventional market for fresh produce.

Turkey's first organic bazaar

In June 2006, the first organic open air marketplace of Turkey launched in Istanbul under the supervision of Bugday with the support of Sisli municipality and the sponsorship of two companies, a dairy products company producing organic milk and a company producing and marketing organic baby food. The organic agriculture definition of IFOAM (2008) is adopted and only certified organic products are allowed to be traded. It took a year for the market to achieve a stable state, see Figure 4, and during that time, a handful of other organic marketplaces opened temporarily and closed down in different cities. It took three and a half years for the market to mature and the second organic marketplace could be opened in December 2009. The second organic marketplace in Istanbul, supervised by Bugday again, is followed by several organic market openings in different municipalities of Istanbul and other

cities, all supervised by NGOs such as Bugday, Ecologic Producers Association (EUD), and Ecological Agriculture Association (ETO). These organic markets are open air marketplaces each operating on a specific day of the week and have sustained until today which is a sign of the progress of the organic sector.

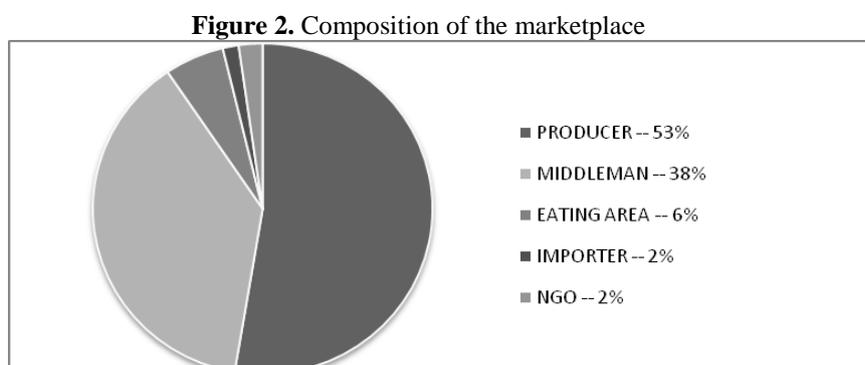
Figure 1. Number of farmers supplying fresh produce to the organic bazaar.



Source: Author

Since June 2006, producers of organic products and consumers meet every Saturday at the market. The producers got a chance at trading directly to the consumers. Consumers report happily that they can now purchase organic products and cook 100% organic meals. After the launch of this market, consumers observed a mobilization of the organic sector; other organic marketplaces have been established, the number of stores offering organic products and of internet groceries for trading organic products has increased, several restaurants started to offer organic menus, well-known chefs started to use and mention organic ingredients on TV programs and the organic bazaar became much more crowded. Consumers shopping at the organic market also witnessed an expansion in the quantity and variety of products traded since its launch in June 2006. The NGO employees report increases in the number of companies active in marketing and selling organic goods, the variety of marketing channels and the number of consumers. Finally in 2011, the ministry published the first list of enterprises active in organic agriculture whose numbers reached 800. The increased supply and availability of organic products boosted up demand which naturally caused a further increase in organic production. A vicious circle has been reversed however more effort is needed by the government and companies to expand the domestic organic market adequately as suggested in Bakirci (2005), Demiryurek (2004), and Kenanoglu & Karahan (2002). Figure 1 displays another evidence of the growth of the marketplace: the number of participating farmers since the outset of the first bazaar until the opening of the second organic bazaar in Istanbul advanced from 14 in October 2006 to 65 in

November 2009. In addition to being a place for trade of organic products, Istanbul's organic bazaar has social impacts; people interact, exchange ideas, meet old friends and form new friendships and collaborations.



Source: Author

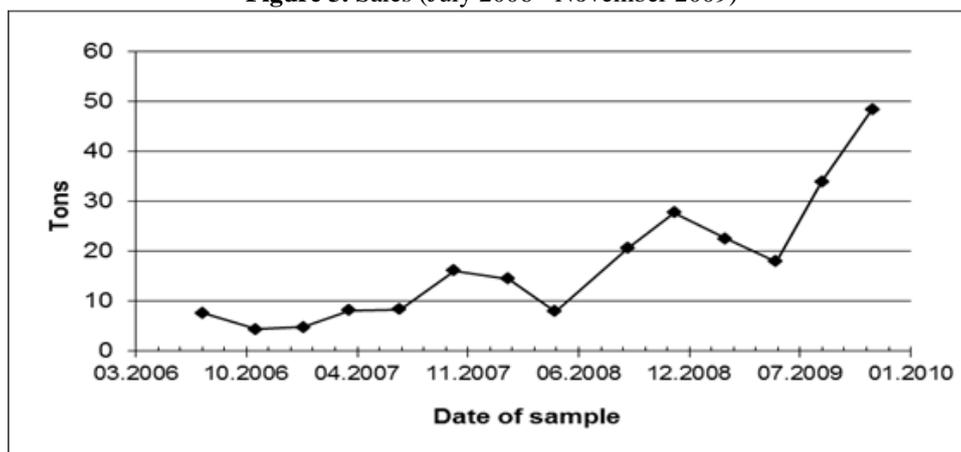
The different groups trading in Istanbul's organic bazaar are farmers, middlemen and importers. Into the middleman category fall all processors, packagers and owners of branded products and other actors like distributors and farmers' representatives. There is an eating area where food, mainly made of organic ingredients found at the bazaar, is served and Bugday uses a handful of stalls as well. The bazaar has a total of 265 stalls and the municipality issues the stall permits. Figure 2 displays the composition of the marketplace that remained more or less stable in the 2006-2009 period: farmers have 53%, middlemen 38%, importers 2%, the eating area has 6%, and Bugday has 1% of the stall permits. A glance at the farm sizes of the producers shows that about half of the suppliers are smallholders (5-20 acres) and the other half own medium sized farms (20-200 acres). A handful of suppliers form an exception; these are owners of more than 500-acre farms. On its stalls, the NGO provides its bulletin, news articles on the sector, announcements of upcoming events such as sharing of seeds and saplings and announcements of trips to organic farms. One can also talk to the volunteers and employees of Bugday and obtain information on organic products, agriculture and different aspects of an ecological lifestyle.

Growth trend in sales

As can be seen in the increase in the number of participating farmers, the introduction of the organic bazaar increased demand for organic goods and in return caused an increase in production. NGO employees who process the applications for participation in the organic bazaar comment that due to the physical limit of the bazaar area a large percentage of applications need to be turned down. Conjecturing that availability of organic food products stimulates the demand for these products, we used sales data collected at the bazaar by

Bugday's volunteers and conducted a pilot data analysis using quota sampling. In Figure 3, the sales data for the sample is displayed. Here we observe that sales quantities increased as the months advanced. The same is true for supply figures which we do not include here. Throughout the sample, the ratio of sales quantities to supply varied between 61% and 94%. That means, for example for the week of 15.08.2009, about 55 tons of produce is brought to the organic market and 34 tons of produce is sold, a ratio of 62%.

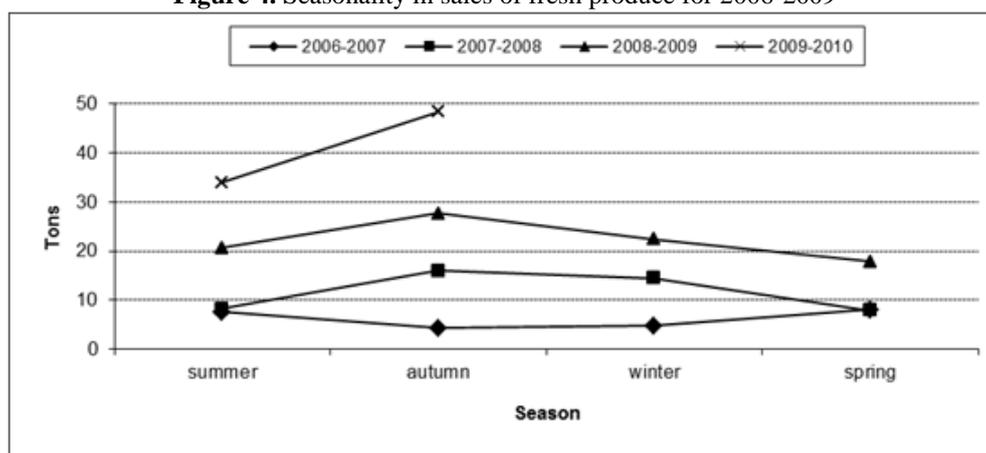
Figure 3. Sales (July 2006 - November 2009)



Source: Author

Seasonality

A natural characteristic of agricultural production that's lost to a large extent with the advances in conventional agriculture is seasonality. People can now find summer fruits and vegetables on the market in winter and vice versa. The whole year seemed to turn into a single season when all vegetables are available. The use of chemicals and growth hormones (Fuss et al., 1990; Subhadrabandhu & Yapwattanaphun, 2001) is aggravated by the higher price that tradesmen ask and get for out of season conventional produce. With organic agriculture where such chemicals and methods are not allowed, seasonality reappeared with the exception of a small amount of organic greenhouse vegetables. By seasonality we mean the effect of seasons on both the variety and quantity of produce. Figure 4 displays the effect of seasons on sales quantities. Autumn is the time of the year with the highest sales quantities, figures in winter and summer seasons are close to each other but lower than the autumn figures of the same year, spring has the lowest sales quantities because winter vegetables have come to an end and summer vegetables have not started to enter the market yet. Seasonality also has an effect on the number of farmers participating in the organic bazaar, see Figure 1.

Figure 4. Seasonality in sales of fresh produce for 2006-2009

Source: Author

Due to the insufficiency of organic production quantities resulting from poorly predicting the influence of the first bazaar on demand for organic fresh produce, data collected during the market's first year was sporadic. However, a pattern emerged in the second year and the increase in organic supply and demand since the start of Istanbul's first organic bazaar is very clear in Figures 1, 3 and 4.

Compared with the conventional fresh produce market

All conventional fresh produce in Turkey must enter the wholesale market system, this arrangement not only places a financial burden on farmers but also results in traceability of products being lost. On the other hand, the conventional wholesale market system has an efficient transportation network. In this section we compare the organic bazaar with the conventional fresh produce market from the perspectives of food safety and quality, transactional proximity, food prices and transportation costs.

Food safety and quality

All products traded at the organic bazaar have to be certified by one of the control and certification companies, this is the most important feature distinguishing the bazaar from conventional marketplaces where control mostly focuses on accounting issues rather than food safety. Even when food safety is controlled at a conventional marketplace, the standards are set so low that large amounts of herbicides and pesticides are allowed. Organic bazaars only offer certified organic food for which the use of limited amounts of specific organic agricultural chemicals is allowed.

Transactional proximity

More than half of the participants of the organic bazaar are farmers and the non-farmer actors participating are either producers of processed and packaged foods, brand owners or farmers' representatives and they are close to the producers in the organic food

supply chain. Here we introduce the term "transactional proximity" to describe the number of transactions a product has to go through before reaching the end consumer. Transactional proximity is related to the concept of "short food supply chains" (SFSC) of Marsden et al. (2000), describing the relationship between the producer and the consumer, but differs from it in the sense that transactional proximity measures the number of hands a product changes whereas SFSC refer to situations where the product reaches the consumer embedded with information, for example printed on packaging or communicated personally at the point of retail. Although all of the useful features of a SCFC are present at the organic bazaar, the distinguishing characteristic that of "producer and consumer being close" can best be measured by transactional proximity; geographic distances could be large, however. In the case of the organic bazaar, farmers do travel to be able to feed a large city as Istanbul, a huge metropolitan area inhabiting more than 15 million people. In contrast to the organic bazaar, the conventional fresh produce market operates through several layers of middlemen. First, local merchants buy the produce from farmers or agricultural companies that employ farmers on contractual basis; next, the produce is sold to one or more merchants successively who bring the produce to a wholesale market in a city. The journey of produce does not end at the wholesale market; to reach the end consumer, it should be sold to a supermarket, a large supermarket chain, a restaurant, a neighborhood grocer, or to another merchant who trades weekly at neighborhood open air marketplaces. The number of these transactions in the conventional fresh production chain is at the very least twice as much as the corresponding number in the organic supply chain. In actuality, this number could be difficult to measure in the conventional case. In contrast, the organic bazaar offers fresh produce either directly from the hands of the farmer or from the hands of the representative who bought the produce directly from the farmer. Therefore, important features such as traceability and food safety are much easier to ensure in the organic setting than in the conventional market.

Price

Premium price paid for organic produce constitutes another major difference from conventional markets. A glance at prices reveals that prices of organic produce at the organic bazaar is usually about the same as and sometimes surpasses those of conventional produce prices at luxury supermarkets. For example, during February 2012, orange at the organic bazaar is priced at 3.5 TL⁷ per kilogram. During the same week, one kilogram conventional orange is priced between 2.79 and 4.29 TL at a luxury supermarket and between 1.50 and

⁷ TL is the abbreviation of Turkish Lira and Euro 1 makes about 2.30 TL, so that one kilogram of orange is priced at 1.52 Euro at the organic bazaar during February 2012.

1.90 TL at a neighborhood open air marketplace where lower income citizens shop. A majority of Turkey's citizens have lower incomes⁸ and cannot afford paying 1.84 – 2.33 times more for organic oranges. The same study for broccoli reveals an organic price premium of 1.33 – 2. A thorough study of the price differences remains to be done.

Wholesale market feature

In every city there are wholesale markets for conventional producers operating 6 days a week. Currently, another function of Istanbul's organic bazaar is as a wholesale market of organic goods that is open for one day only. Representatives from almost all the stores selling organic products and health food stores in the Istanbul area come to the market to purchase products in order to satisfy the weekly demand. Similarly most Internet groceries purchase the products they ship to their customers at Istanbul's organic market. There are also a few restaurants with organic menus whose representatives regularly shop at the organic market. In order to enable easy shopping for retail customers, wholesales are allowed until 7:00AM only. Note that the bazaar and these wholesales take place on Saturdays. There is certainly a need for a wholesale market for organic produce that operates at least 6 days a week similar to the conventional setting. In addition, there is also a need for appropriate storage facilities complying with organic standards. Coming together with the opening of several new organic marketplaces in Istanbul since December 2009, these needs will point to a possible vertical expansion of the bazaar in the future.

Transportation costs

Large tonnages of conventional produce transported every day enable an efficient transportation and storage system. There are several trucks carrying conventional agricultural products from all over Turkey to the wholesale market in Istanbul at reasonable costs, about 0.10-0.15 TL per kilogram. These trucks cannot be used in the transportation of organic produce due to concerns of reliability, safety, contamination, traceability and accountability. This is a huge problem except for a handful of the suppliers of organic produce who are large scale producers and transport sufficient produce so that the use of their own vehicles is justified. A participating farmer with more than 1000 acres of farmland reported incurring a unit transportation cost of 0.25 TL per kilogram of produce. However, the situation is different for the majority of organic produce suppliers, the small scale farmers, who produce, transport, and sell low tonnages, do not possess their own vehicles and use domestic cargo companies to transport their produce to the organic bazaar. A farmer with only 16 acres of land reported incurring a unit transportation cost of 0.60 TL per kilogram. At a market where

⁸ Turkish Statistical Institute.

average prices of produce are around 3-5 TL per kilogram, transportation costs account for about 12-20% of the sales revenue for small scale farmers. Therefore, transportation is a high cost item for Istanbul's organic bazaar and an efficient transportation scheme is needed.

NGO officials confirmed that high unit transportation costs increases the unit prices of organic produce, scares away consumers and reduces the profit margins of farmers. They also suggested that Turkey's exceptional position aggravates the problem further; the price of fuel in the country is extraordinarily high, the most expensive in the world, about 16TL per gallon as of December 2011, and the buying power (TUIK 2010) of the majority of citizens is limited. These circumstances constitute reasons for the trade of organic products to yet remain far from quantities desired by the actors of the organic sector.

Conclusion

In this paper, we examined Turkey's first organic open air marketplace in the period between its launch in June 2006 and the opening of a second organic bazaar in December 2009 to display the trends in organic fresh produce sales. The preliminary data analysis exhibits an increase in the demand for organic products after the opening of the organic bazaar in Istanbul. The figures also display seasonality; a natural characteristic of agriculture that has almost completely disappeared in conventional production. Also acting as the wholesale market for organic products, the organic bazaar greatly differs from the conventional food market, in particular in terms of transactional proximity, the number of exchanges a product goes through, availability, food safety, price, and transportation costs.

Limitations and further research

Understanding the organic consumer is very important for the organic sector, however our research did not focus on the purchasing behavior of the consumers. We observed the motivating effect of consumers' interactions with producers. These face-to-face interactions bear similarities to traditional bazaars and earlier forms of trading between people which we have not investigated further. The price premium, although partially justified, appears to be an impediment to the widespread consumption of organic products. We also have not conducted a complete study of the price differences between organic and conventional products. All of these need to be further researched. Through interviews with farmers participating in the organic bazaar, we determined the problem of high transportation costs to be damaging to the sector. Using a vehicle routing formulation, Demir and Demir (2012) propose an efficient transportation system for the organic bazaar; the preliminary results are encouraging. Finally, different stakeholders of the market have varying goals. Nevertheless, the ultimate goal is the production and consumption of organic products, a common good,

and as such the question of whether these stakeholders operate in greater harmony remains open. This question could be studied from the perspectives of competition and cooperation together with the governance structure appropriate for this setting.

Acknowledgements

Raw data for this research has been provided by the Bugday Association for Supporting Ecological Living; thanks are especially due to Batur Sehirlioglu of the Bugday team. I also wish to thank Prof. Dr. Beyza Oba for useful comments.

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