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Original Research Article

Competitive Analysis of Turkish Fruit and Vegetable Processing Sector

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ABSTRACT

A review of Turkish agricultural history shows that dramatic changes have occurred in fruit and vegetable industry. It seems evident that changes will continue for the coming years. Especially developments of South Marmara Regions fruit and vegetable processing industry provide a good example for the agri-food sector. Today, consumer preferences drive markets. Reshape of the international agricultural trade is required due to, mainly, the globalisation of the markets. This will give growers more competition and the issues of marketing, international trade, environmental protection and government policies will be important factors for them. The aim of this study, it to examine the current situation of Turkish fruit and vegetable processing industry and highlight some points for the competitiveness of the industry. In general, Turkey tomato paste industry is a healthy sector directed to export markets, with some difficult years. Especially the decrease in production in 2010 caused an increase in the import.

Keywords: competition, competitive power, SWOT analysis

INTRODUCTION

The structure of food marketing and performance criterions varies under influence of customer preferences. Through this, the agricultural production and food industry are effected. This invokes that consumer orientation is an important issue for the continuation of firms in competitive circumstances. These changes and the ongoing improvements in the Turkish fruit and vegetable processing industry make it interesting to explore the international markets. Also, there is more consumer interest in the Mediterranean diets outside this area. An important factor herein is the different nutritional composition of these foods (Arıkbay 1996, Arikbay 1997, Cotterill 1993, Porter 2000, Reed 1994, Spoon *et al.* 1998).

In Turkey the economic importance of the food industry on the base of production, added value, employment and foreign trade criterions in the agricultural industry is high compared to other sectors (Çetin, 1999, Akgüngör *et al.* 2001). In 2003 the food industry production is 14.4% of the total production industry and the total trade value is 10.7%. The economic importance resulted in government encouragement and increasing interest of the private sector due to the good financial results. The cereal industry and, at second stage, the fruit and vegetable industry form half of the Turkeys food industry exports (Hall, 2001, http://www.europa.eu.int).

The EU is the most important export market for Turkey’s fruit and vegetable products (Akbay *et al.* 2005). From 1985 there is an ongoing trend towards foods containing a low level of cholesterol. It is expected that this trend will continue the coming years. Jams and marmalades in the North countries, especially in Germany, and canned fruit and vegetable industry in the Mediterranean regions, especially in Spain, have become dense. Other countries partly produce the same products as Turkey because of similar climatic conditions. This affects the competitive power of Turkey in EU marketing (Karabağlı and Akbel 1997).

Turkey’s fruit and vegetable sector is capable to handle and process produce from primary production at farms to final products. It can be seen from Table 1, the processed fruit and vegetable products has been shared half of the Turkeys food industry. The major product categories are tomatoes and other canned vegetables, jams and marmalades, pickles, fruit juices and frozen fruit and vegetables (Anonim 2011).

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Table 1. Processed fruit and vegetable production and export in Turkey.

	Ton/Billion $
1.Processed Fruit and Veg. Production	85172
2.Food Industry Production	570062
% Ratio(1/2*100)	14,9
3.Processed Fruit and Veg. Products Export	2549
4.Food Ind. Export	39571
% Ratio (3/4*100)	64,4
5.Processed Fruit and Veg.Products Import	2129
6.Food Ind. Import	41264
% Ratio (5/6*100)	5,1

Source: Anonim, 2011, http://www.europa.eu.int, 2011

Three groups in Turkey's fruit and vegetable export products form the export bulk. Grapes (products), tomato (products) and citrus fruits (products) have the largest quantities among the export products.

Similar studies have been implemented for different sectors. For example; In Başkol 2011 study, on the competitiveness of the Turkish automotive sector finds that the Turkish automotive sector is competitive in world markets. However, the intensive global competition in the automotive sector obliges to develop policies that aim both to preserve current levels of competitiveness and to create sustainable competitiveness in the sector. Alemdar (2008), status of Turkish food sector within global value chains is analyzed based on similar experiences of some countries. In Ediz (2005), strategical management and general competition strategies, international markets and the effect of companies at the international markets, entry modes for the international markets are explained, then a general valuation has been done on the textile and confection sectors in Turkey. In practical part of the study, the entry modes of different sized textile companies which are doing production in Çerkezköy area and the reason for choosing the entry modes have been explained. Turhan (2005), emphasized that fruit and vegetable processing subsector had the highest competitiveness in Turkish food industry in its competitiveness research in 2005.In 2008, Turhan conducted a research on competitiveness. In this research, competitiveness of pasta industry has been investigated. It was concluded that the sector has competitive power in international markets.

In this study, competitiveness of Turkish tomato sector will be examined. In addition, the current situation and structure of the sector will be provided by swot analysis.

MATERIALS AND METHODS

It is intended to determine processed fruit and vegetable production competition power in this study. Because of reliable and easily available data the study was carried out only processed tomato industry. This product has an important share in the sector. Between 1993 to 2015 some competition power indicators (Import Penetration Ratio, Coefficient of Export, Openness to External Competition, Export Market Share, Export/Import Ratio) are used for evaluation. Also, to bring up strong and weak sides of the sector, the SWOT analysis method is used.

RESULTS AND DISCUSSION

Competitiveness of Tomato Paste Sector

The Turkey's tomato paste sector has a high competition rank at international marketing because of high availability of raw materials and use of the latest technological processing techniques. The most important export tomato product is tomato paste. The biggest rivals of Turkey in tomato paste are Italy, Greece, Portugal and Spain. Rivals for marketing power are Italy and Greece. These countries and Turkey realise 80% of the worlds tomato paste export. The process techniques used in the different countries are of similar level. The latest technologies applied in the EU are also used in Turkey shortly after introduction in the EU. This applies especially to technology used in Italy. Inexpensive raw material and low levels of product costs are important advantages for Turkey. But the high levels of inflation decrease that advantage. Also, Turkey has high energy costs compared to EU countries. On the other hand, the labour costs are low. It has some disadvantages for financing costs and interest (Oral 1993, Eurostat, 1997).

Based on technological equipment and possibilities for tomato paste industry Turkey can compete at international level. But firms mainly produce for domestic markets. Therefore, they do not pay attention to international demands such as quality, packaging size and other criterions. This limits their access to international markets. To grow to the expected, and potentially present, performance level attention needs to be paid to different customer demands and to growing markets in other countries. This requires well-organised firms capable of improving the state of the national economy. For establishing the competition power of the tomato paste industry various scientific criterions can be used. Import Penetration Ratio, Coefficient of Export, Openness to External Competition, Export Market Share and Export/Import ratios are investigated to measure competition power of this industry at international level. Values of these ratios are given in Table 2 (Anonim 2011).

Import Penetration Ratio shows the size of this industry realising the foreign trade (Bayaner 1998). If this value approaches "0" domestic demands can be neglected. Up to 1997 the Import Penetration Ratio was at a low level. Decrease in production in 1997 caused an increase in import values. But after that production rates began to increase and the industry became powerful again, resulting in less import.

In general, the Turkey tomato paste industry is a healthy sector directed to export markets, with some difficult years. Especially the decrease in production in 2010 caused an increase in the import.

Table 2. Some indicators of competition power in tomato paste industry.

Years	Import penetration ratio	Coefficient of export	Openness of external competition	Export market share (%)	Export/Import ratio
1993	1,04	-	1,52	10,6	224,1
1994	-	2,83	1,68	08,0	208,2
1995	1,46	2,98	1,52	10,5	110,9
1996	0,27	4,65	1,45	10,4	702,5
1997	10,07	2,72	1,71	10,6	21,5
1998	3,71	3,60	1,57	09,8	57,6
1999	0,59	2,84	1,59	08,6	327,1
2000	3,45	2,73	1,63	07,7	49,4
2001	0,01	2,72	3,70	0,06	325,8
2002	3,15	3,06	2,26	0,06	102,4
2003	3,01	2,64	2,10	0,1	112,6
2004	3,00	2,60	2,00	0,1	110,2
2010	3,10	2,71	2,10	0,1	116,8

SWOT Analysis

The SWOT (strengths, weakness, opportunities and threats) analysis has been a useful tool for industry and agro-food industry as well. For a company, a country or a sector a good performance is the result of correct interaction of management with its internal and external environment. The recognition of internal strengths and weaknesses, as well as external opportunities and threats can be analysed by a SWOT analysis (Houben *et al.*, 1999; Collet, 1999). It is useful in evaluating the firm's fulfilment of its basic mission. Decision making using SWOT analysis involves building on strengths, minimising weaknesses, seizing opportunities and counteracting threats (Balamuralikrishna and Dugger, 2001). A simplified SWOT analysis is used here to evaluate the tomato processing sector of Turkey.

Strong and weak sides with opportunities and threats of the tomato-processing sector are shown in Fig. 1. Criterions such as modern production technologies, inexpensive and appropriate occupation and raw materials and good environmental conditions are strong sides of the tomato-processing sector. On the other hand, high electricity costs, insufficient finance possibilities and high inflation levels are the weak sides of this industry.

On the other hand, some commercial relations with the EU, developments of demands of domestic markets and new market possibilities (Middle East, Japan, Far East, Australia, etc.) are seen as opportunities. New rival countries entering the market and some global or regional crises are the difficult sides of the sector. As a result, we can say, the tomato processing sector in Turkey is a food sector that faces competition and opportunities and the importance of this sector will increase in the coming years.

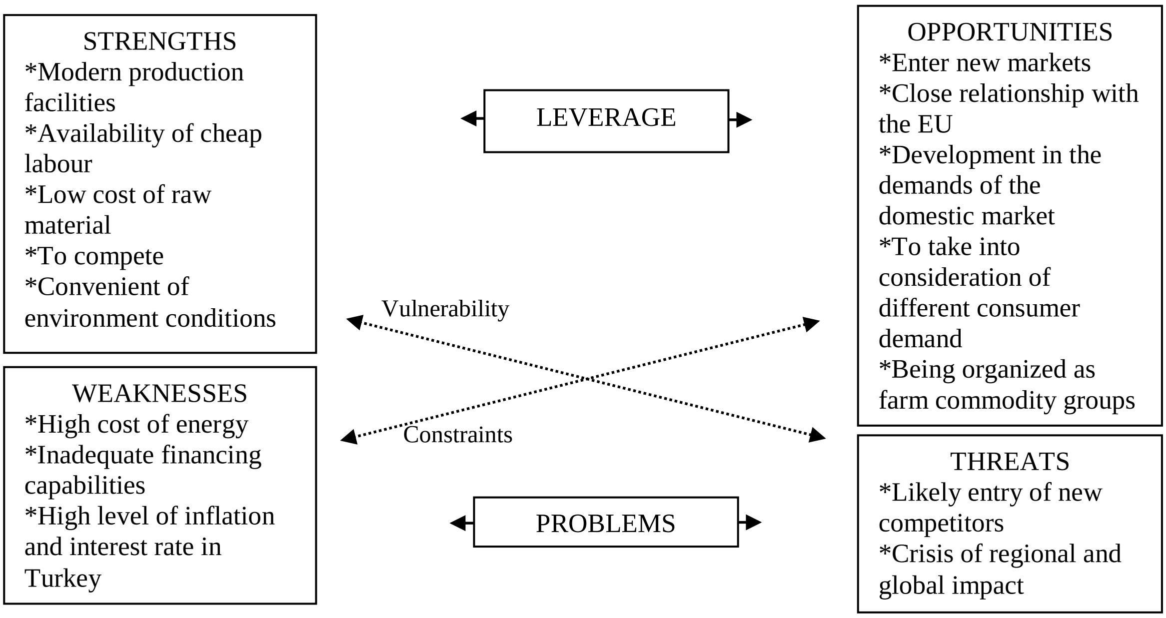

Figure 1. Sample SWOT analysis of the tomato-processing sector in Turkey
Source: Adopted by authors from Aldag and Timothy, 1991.

CONCLUSIONS

Agriculture and agro-industrial enterprises in Turkey, rural development of areas such as employment income generation contribute to the development of the economy with positive aspects. Fruit and vegetables are important agricultural products of our country. When we compare with other countries in the world, in Turkey, fruit and vegetables can be produced in all session and in all regions, but a few regions and cities dominate in the production of these crops. Therefore, it is the most important sub-sector within the industrial sector. To increase our competitiveness in international market contractual agricultural practices should be developed and production of products of the desired quality should be encouraged. In addition, the sector to increase the quality of branding and competing with other countries, especially in European markets needs to be made.

REFERENCES

Akbay C., S. Candemir, E.Orhan, 2005, Production and Marketing of Fresh Fruit and Vegetable Products in Turkey, KSU Journal of Science and Engineering, 8(2)-2005, pp.96-107.

Alemdar T., 2008, Status of Turkish food sector within global value chains, MPRA Paper No. 39689, posted 13. July 2012 UTC

Anonim, (2011). SPO. 2011, Annual Statistic of Turkey, State Planning Organization, Ankara.

Akgüngör, S., Barbaros, F., Kumral, N.. 2001, Evaluation of Fruit and Vegetable Industry In Turkey According to Sustainable Competitive Power of EU. Ministry of Agriculture and Rural Affairs, Ankara.

Aldag, J., Timothy M. S. 1991, Management. Cincinnati, Ohio: South-Western Publishing, 1991, pp. 199-201.

Arıkbay, C. 1996, Agri-Industrial Relationships During to Customs Union, II. Agricultural Economics Congress in Turkey, Adana.

Arıkbay, C. 1997, Develop and Expectation in Turkey Food Industry Condition of Customs Union, Developments and Expectations, Condition of Customs and Competition of Food Industry Seminar and Panel. MPM and Union of Exports of Aegean Sea, İzmir.

Balamuralikrishna, R., and Dugger, J.C. 2001, Swot Analysis: a Management Tool For Initiating New Programs in Vocational Schools. Journal of Vocational and Technical Education. 21(1).

Başkol, O.M., 2011, International Competitiveness of the Turkish Automotive Sector (1996-2010), PARADOKS Echonomy, Sociology and Policy Journal, Temmuz/July 2011 - Cilt/Vol: 7 - Sayı/Num: 02 Sayfa/Page: 63-78.

Bayaner, A., 1998, Turkey Durum Wheat Sector and Competitiveness in the International Market, Agricultural Economic Research Institute, Ankara.

Cotterill, R. W., 1993, Competitive Strategy Analysis in the Food System, Westview Press, ISBN 0-8133-8638-1, USA.

Çetin, B. 1999, Food Industry Management. Uludag University, Publication number:136, Bursa, 186p.

Collet, S. 1999, Swot Analysis, Computer World. 33(29). 19 July.

Ediz, E., 2005, International Competition Strategies of Businesses and An Applied Research, Trakya University, Institute of Social Sciences. Master Thesis.

Eurostat 1997, Panorama of the EU Industry European Community, 1996. s.24,3/27.

Hall, C., R. Edward and J. Johnson, 2001, A Guide to Marketing Organic Produce (http://aggie.horticulture.tamu.edu)

Houben, G., Lenie, K. and Vanhoof, K. 1999, A Knowledge-Based SWOT Analysis As An Instrument For Strategic Planning In Small And Medium Sized Enterprises. Decision Support Systems. 26:125-35.

http://www.europa.eu.int

Karabağlı A., Alpkent N. 1997, Adaptation of Turkish Food Industry in EU Market. National Productivity Center of Turkey, No:600, Ankara.

Oral, M., 1993, Determining Competitiveness Measurement and Strategy, Competitiveness and Strategy of Turkey Industry -93 Industry Congress Proceedings, Cilt:1, TMMOB N. 160. Ankara

Porter, E.M., 2000, Competitive Strategy, Sector and Competitor Analysis Techniques, ISBN: 975-322-082-0, İstanbul

Reed, M.R., 1994, Importance of Nonne Price Factors to Competitiveness in International Food Trade, In Competitiveness in International Food Markets, Edited by Bredahl M.E.P.C., Abott and M.R. Reed,Westview Press.

Spoon, M.D., Benedict, J., Leontos, C., Zepponi, N.K. 1998, Increasing Fruit and Vegetable Consumption Among Middle School Students: Implementing the 5-A-Day Program, Journal of Extension, 36 (4).

Turhan, Ş., 2005, Evaluation of Turkish Food Sector in Terms of Competitive Power, Türkiye V. Agricultural Economics Congress 18-20 September 2002 Erzurum.

Turhan, Ş., 2008, Evaluation of the Competitiveness of Pasta Industry in Turkey, Productivity Journal, 2008 (4) , 115-125.