

## **Evaluation of Global Competitiveness Power of Food Sector in Turkey: An Analysis of Revealed Comparative Advantages (Rca)**

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**ABSTRACT:** Food products are among the indispensable parts of life. All people's lives in order to protect their health and maintain food products must consume. Food products industry that a variety of products available, passing from an industrial process. The demand is very high for food product and food products are a great export potential. Almost all countries in the world are striving to gain more share in this sector and to increase their competitiveness in the world. Turkey is one of the actors of this race, too. In this study, Turkey's food products sector competitiveness to be examined how this competitiveness over time studied and exhibited a change. Revealed Comparative Advantages Index (RCA) was used while determining the competitiveness of Turkey in the sector. In addition, food products sector's strengths and weaknesses are raised and must be done for the upgrade has been mentioned to competitiveness.

**Keywords:** Food products, Competitiveness, Revealed Comparative Advantage Index

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### **I. INTRODUCTION**

Nourishment is one of the basic needs to continue life. Food sector is the one providing food products required to meet this need. There are several reasons making food sector important. One and maybe the most important one of the reasons is the significant role of food products for life to continue. People cannot live on without being nourished. Therefore, one can infer that food supply should be kept up continuously and without any interruptions. Production of food stuff should be provided progressively meanwhile the products provided should be of good quality and healthy. Because one of the typical features of food products is that they have power to affect human health directly. Foods produced with low quality and inappropriately to health standards may lead to a path to even death. In addition to these, it should be stated that back and forth connections of food sector are high. Food products both use products manufactured in other sectors as input and they also have the characteristics of input for other sectors. Thus, it is possible to say that food products are so important that they can be qualified as “leading sector”. Indeed, for a sector to be a leading sector, it is significant for their back and forth connections to be high, according to economic growth and development theories and it can be specified that this feature is valid for food sector. Due to its forth and back connections, food sector provides job opportunities for many people directly or indirectly (Akin, 2012). Also, the tendency food products show in particular in crisis periods is quite remarkable. Various crises have been experienced only in Turkey and all over the world throughout history. Individuals are usually observed to restrict their expenditures. The striking point is food expenses are not reduced distinctly even in crisis periods. While people delay their expenses such as dress, household goods and vacations, they do not show remarkable changes in consumptions they make for food products. This case is one of the basic features of food sector (Deloitte, 2010). With this aspect, significance of the food sector is clear both in economic sense and in the sense of human health.

In time, changes and developments have been seen in food sector as in almost all sectors. It can be stated that the main aim in food and agriculture policies until 1950s were to meet people's nourishment needs and an approach of being able to become self-sufficient was adopted. However, after 1950s, this thought was started to be left with the effect of technological developments. An increase in production and efficiency arose after 1950s and much more products were begun to be produced than those consumed in internal market. Policies on selling extra products to foreign countries were followed (Eştürk and Ören, 2014).

After 1980, industrialization strategy based on export was started to be applied in Turkey. This situation affected food sector closely as well. Modern food production facilities were established and a spring occurred in food sector, with the strategy based on export. Turkey took firm steps forward being one of the significant food products exporters in the world. However, it is possible to note that injuries in its competitive capacity were experienced because of problems the sector came across although progress was made in food sector in time (ICC, 2006). From this point forth, this study aims to reveal Turkey's competitive power in food industry having significance from many perspectives such as export, employment, GDP, and human health. For

this aim, general information on the sector is provided, then some basic indicators of the sector are examined and competitive power is tried to be determined. After determinations concerning competitive power, analysing strong and weak aspects of the sector, suggestions are offered to increase competitive power.

## **II. LITERATURE REVIEW**

Together with globalisation process, an intensive competition was started to be experienced between both companies and countries. As industrial products and particularly the products produced in manufacturing industry have a large share in total export carried out by countries, it is seen that there are many studies aiming at setting forth the competitive capacity of sectors. Reviewing studies that measure Turkey's sectoral competitive capacity, it is seen that the revealed comparative advantages index and Porter's diamond model are generally used. For instance, Eroğlu and Özdamar (2006) examined competitive capacity of Turkish white good sector in the study carried out by them. It was determined from the findings obtained that Customs Union (CU) was a positive development for Turkish white good sector and Turkey's competitive power showed and increase against both the EU countries and other countries after CU. RCA index was used as a method in this study. Another study made regarding sectoral competitive power was prepared on furniture sector. In the study carried out by Altay and Gürpınar (2008) competitive power of furniture sector was calculated using various indexes. Competitive power of Turkish furniture sector between the years 2001 and 2006 was researched according to seven different indexes such as revealed comparative advantages index, relative export advantage index and relative import penetration index etc. in the research carried out, it was precipitated that competitive power of Turkish furniture sector worldwide increased in time but its competitive power was not so high against the European Union. Despite this, it was seen that our disadvantaged situation against the European Union was reduced within years.

Apart from studies examining competitive power with the help of revealed comparative advantages index, there are studies approaching to competitive power from the view of Porter's diamond model. One of those is the article of Bulu, Eraslan and Kaya's (2006) in which they analyse Turkish electronic sector. In this article competitive level of electronic sector is tried to be displayed by using diamond model. According to Porter's diamond model, there are some factors affecting companies to obtain competitive advantages and Porter divides these factors into four main groups. Four main factors affecting competitive powers of companies are input (factor) conditions, firm strategy and its competitive structure, demand conditions, relevant and support industries (Porter, 1990). Bulu, Eraslan and Kaya (2006) determined competitive power of the electronic sector by explaining its situation with those conditions.

Having a look at the studies made on competitive power of food sector, it is seen that diamond model was adopted in the study prepared by Bulu, Eraslan and Barca (2007). In the study, problems concerning food sector were mentioned and suggestions were offered on how to solve those problems in order to increase competitive power. The main point highlighted in the suggestions offered, producers, industrialists and state should act mutually in order to reach a solution. Another study was set forth by Donduran, Tozanlı and Ataay (2007) on competitive power of food sector. In this study, strong and weak aspects of food sector was evaluated. Structures and basic characteristics of pioneering companies operating in food sector were referred.

## **III. DATA AND METHOD**

The interval between 2001 and 2015 was taken as a basis in the calculations made. As stated in the previous section of the study, world export of the sector is required to calculate RCA indexes. The needed information in this issue was acquired from Trademap system. As the available export information in Trademap contains the period 2001-2015, this period was used for calculations. Revealed comparative advantages index was discussed in displaying global competitive power of food products sector. Its main reason is following a policy based on export after 1980. RCA index takes export values into consideration, as well. Thus, it is possible to form an opinion on what extent export based growth strategy succeeds.

Revealed comparative advantages were firstly asserted as a benchmark in a study published in 1965 by Bela Balassa. Then, comparative advantages explained in various reports and academic articles, were often started to be used as a benchmark of specialty in international trade (Laursen, 1998:1). Hence, it can be expressed that revealed comparative advantages index (rca) are used to measure specialization levels of countries in international trade.

Rca index takes revealed export figures or export shares of countries as a basis. Therefore, it is tried to be determined that which export sectors are strong and which ones are weak in the countries. Not only relative prices, but effects of non-price factors regarding comparative advantages are possible to be seen in the index. Its major reason is the use of post-trade data for index calculations (Yalçınkaya et.al, 2014).

Main formula used in RCA index calculation and variables in this formula are stated below (Vergil and Yıldırım, 2006):

$$RCA_{ij} = \left( \frac{X_{ij}}{X_{it}} \right) / \left( \frac{X_{wj}}{X_{wt}} \right)$$

**X<sub>ij</sub>**: export of product j by country i

**X<sub>it</sub>**: total export of country i

**X<sub>wj</sub>**: worldwide export of product j

**X<sub>wt</sub>**: total export worldwide

A proportioning is made in this formula. Firstly, the proportion of the export made by the sector within total export in the country is consulted. Then, to what extent the export is made in that sector and the proportion of this export within the export worldwide is consulted. After that, these two proportions are divided into each other (Vergil and Yildirim, 2006).

If the calculated rca value is equal to 1, percentage share of the country in hand concerning data sector are considered to be equal to the OECD average. If the rca value is above 1, it is inferred that the country in hand is an expert in data sector. Provided that the rca value is below 1, it is understood that the said country cannot specialized in the relevant sector (Hinlopen and Marrewijk, 2004).

#### IV. CURRENT SITUATION OF FOOD SECTOR IN TURKEY

One of the sub-sectors of manufacturing industry is food products. Food sector receives raw material needed from agricultural sector, puts this material from various processes and releases to the public ready for consumption. Food sector uses raw material it obtains from agriculture as input, with this aspect, it contributes to benefitting from agricultural products. Meanwhile, the products manufactured in this sector have the characteristics of raw material for industry. Thus, it can be stated that back and forth connections of food sector are strong. Its high capacity to create employment and power to affect people's health is among the grounds making food sector important (Demir and Tuncay, 2012).

There are several subgroups of food products manufacturing within itself. These subgroups are as follows: red meat, poultry sector, water products, canned fruit-vegetables and tomato paste, frozen food, vegetable oil, olive oil, milk and dairy products, flour and bakery products, starch and starch based sugars, compound feed sector, biscuits, sugary products, pasta, food additives and excipients, catering sector (ICI, 2006).

When making examinations on competitive power of food sector, its current situation in some basic economic indicators and how these indicators show changes in the course of time is important, as well. Hence, numeric data of the sector will be displayed before mentioning indicators expressing competitive power.

#### V. PRODUCTION INDEX

Industrial production index, is a concept revealing changes in physical production regarding manufacturing industry. Industrial production index can be used as reference serial on GDP calculations. Therefore, it can be said that production index indicators are closely followed by both investors and fiscal policy makers (Yildirim and Kılıç, 2016).

Table 1 shows production index data of food sector within the period 2005-2016.

Table1. Industrial Production Index of Manufacturing Industry and Food Products Industry (2010=100) (2005-2016)

Years	Manufacturing Industry	Food Products Manufacturing
2005	87,4	80,4
2006	93,7	85,1
2007	100,0	87,7
2008	98,5	90,6
2009	87,3	90,3
2010	100,0	100,0
2011	110,5	106,9
2012	113,0	110,7
2013	117,5	116,6
2014	121,3	121,9
2015	125,7	122,4
2016	127,5	124,9

Source: TURKSTAT, www.turkstat.gov.tr, [21.02.2017]

As seen in the Table 1, both throughout manufacturing sector and in food products sector fluctuations were experienced in terms of production index. As per an overall view of manufacturing industry, production index in the years 2005 and 2006 remained below 100. Although production sector was recorded as 100 in 2007, it was reduced in 2008 and 2009, and calculated as 87,3 in 2009. In fact, the lowest production index value in manufacturing industry occurred in 2009. It can be said that 2008 global crisis has a major share in this situation, because 2008 global crisis caused a shrinkage in Turkish manufacturing production index. The time frame when

the severest shrinkage occurred was the period of 2008-2009. Manufacturing industry production index decreased by 30% in the first quarter of 2009, comparing with the second quarter. Global crises caused negative effects on manufacturing industry production in Turkey. The main reason for this effect to reach high dimensions is that innovation and R&D expenditures are not made in almost all sub-sectors of manufacturing industry in our country sufficiently. Thus, both external dependence in production sector increases and manufacturing of high technology products cannot be provided in desired levels. Therefore, sustainable production process in manufacturing industry during crisis periods is damaged (Corut, 2013). However, it is seen that a serious recovery period was entered in terms of production index in manufacturing industry after 2009 and production index in 2016 was calculated as 127,5. This value is the highest production index value recorded between the years 2005-2016.

Viewing production index of food sector, it is seen that an increase was experienced in course of time like manufacturing industry. Production index which was 80,4 in 2005 showed a regular increase in the years 2006, 2007 and 2008 and became 90,6 in 2008. In 2009 a sum of decrease was seen and production index remained at the level of 90,3. However, it is seen that this decrease is more limited in comparison with the overall manufacturing industry. The decrease in production index between the years 2008 and 2009 is 11,2 points. In food sector, only a production index decrease of 0,3 point occurred in food sector. After 2009, production index increased gradually and reached to the level 110,7 in 2012. In 2016, it occurred as 124,9. The highest production index value in both the overall production industry and food products sector was reached in 2016.

## VI. CAPACITY USAGE RATE

Another main indicator to be examined with regard to food sector is capacity usage rate. "Capacity usage rate of manufacturing industry aims to receive capacity usages realized actually according to their available physical capacities of workplaces operating in manufacturing industry sector in survey periods. Aim of the said rate is to reach the ratio of inputs used in production and inputs that can be reached in practice" (ICC, 2013:7). Capacity usage rates of food sector is given in Table 2.

**Table 2.** Capacity Utilization Rate of the Food Products Manufacturing (%)

(2007-2016)

Years	Total Manufacturing Industry	Food Products Manufacturing
2007	80,2	72,6
2008	76,7	73,6
2009	65,2	68,4
2010	72,6	70,3
2011	75,4	70,2
2012	74,2	71,7
2013	74,6	71,7
2014	74,4	71,2
2015	74,7	70,4
2016	75,5	69,3

**Source:** Turkish Republic Central Bank, Statistics, [www.tcmb.gov.tr](http://www.tcmb.gov.tr), [06.02.2017]

The year with the highest capacity usage rate in terms of total manufacturing industry between 2007-2016 is the year 2007. The capacity usage rate which was 80,2 in 2007 decreased in 2008 and 2009 gradually, was realized at the level 65,2 in 2009. The year with the lowest capacity usage rate among the years in the table is 2009. It can be expressed that 2008 global crisis has an effect on that case. Capacity usage rate showed an increase after 2009 and did not drop below 71,6. Capacity usage rate recognized as 75,5 in 2016.

When looking at capacity usage rate of food sector, it is seen that the capacity usage rate which was 72,6 in 2007 increased to 73,6 in 2008 but remained below 68,4 in 2009. It draws attention that both in the overall manufacturing sector and food products sector a decrease occurred in capacity usage rate in 2009. The fact that capacity usage rate decreases in crisis years is an indicator for manufacturing industry is extremely sensitive in crisis periods (Kundak, 2015:111). It can be stated that a recovery occurred regarding capacity usage rate in food sector after 2009. Capacity usage rate in food sector was fluctuated between 69,3 and 71,7 after 2009.

## VII. FOREIGN TRADE

Table 3 includes foreign trade values of food sector.

**Table 3. Export and Import Values of Food Sector (Million Dollars) (2008-2015)**

Years	Food Exports	Manufacturing Industry Export	Food Imports	Manufacturing Industry Import
2008	6.475,80	125.187,6	3.763,00	150.252,3
2009	5.917,40	95.449,2	2.912,70	111.030,5
2010	6.656,90	105.466,6	3.381,90	145.366,9
2011	8.831,00	125.962,5	4.825,40	183.930,2
2012	9.458,70	143.193,9	5.225,30	176.235,0
2013	10.666,00	141.358,1	5.535,30	196.822,8
2014	11.005,40	147.059,4	5.701,60	187.742,2
2015	10.256,50	134.389,8	5.194,50	166.821,2

**Source:** TURKSTAT, www.turkstat.gov.tr,[04.01.2017]

Food export was realized as 6.475,8 million USD in 2006. It can be said that a decrease occurred in export with the effect of global crisis in 2009 and export dropped below 5.917,4 million USD. However, a tendency of rise was entered since 2009; a regular rise was seen in food products export between the years 2010-2014. Even if a sum of decrease was seen in export in comparison with 2014 in 2015, the export in that year is higher than that of in the period between 2008-2012.

When reviewing export figures in sense of total export industry, it catches attention that export dropped in 2009. The export which was 125.187,6 million USD in 2008, dropped by 95.449,2 million USD in 2009. It increased step by step in 2010 and later on and reached to 143.193,9 million USD in 2012. In 2013, a little decrease was seen and in 2014, it reached up to 147.059,4 million USD. In the period comprising the years between 2008-2015, the year with the highest level in manufacturing industry is 2014, the one with the lowest level is the year 2009.

As for the situations of food sector in the perspective of import, the table arising can be summarized as follows: A decrease occurred also in food products import in 2009 just as export. However, this decrease can be expressed as not permanent and an increase was seen in import after 2009. By the period examined, the year with the highest import level is 2014. The import amount in 2014 is 5.701,6 million USD. When assessing food products sector together with export and import figures, it can be said that export is higher than import and it has a foreign trade surplus. It is seen that the food products export was two times more than import between the years 2008-2015.

Total import figures of manufacturing industry followed a fluctuating course in the period 2008-2015. The import which was 150.252,3 million USD in 2008 decreased in 2009, increased again in 2010 and 2011 and reached up to 183.930,2 million USD in 2011. Despite a decrease in 2012, it showed a rise again in 2013 and occurred as 196.822,8 million USD. It decreased again in 2014 and 2015. Contrary to food sector, a foreign trade deficit is seen in manufacturing industry.

It can be useful to have a look at the shares of food products' export and import in manufacturing industry after discussing foreign trade data food products sector and manufacturing industry. Hence, the place and importance of food products sector in manufacturing industry can be understood better. In Table 4, the rates of foreign trade of food sector within manufacturing industry in the period 2008-2015.

**Table 4. Shares of Food Sector Exports and Imports in Manufacturing Industry Exports and Imports (%) (2008-2015)**

Years	Share in Total Manufacturing Industry Exports	Share in Total Manufacturing Industry Imports
2008	5,17	2,50
2009	6,19	2,62
2010	6,31	2,32
2011	7,01	2,62
2012	6,60	2,96
2013	7,54	2,81
2014	7,48	3,03
2015	7,63	3,11

**Source:** Calculated from us using TURKSTAT data

The export carried out in food sector in 2008 composes 5,17% percent of total manufacturing industry export. This rate became 6,19 in 2009. The sparkling point is the share of food product export increased in 2009 when the effects of global crisis was experienced intensively. The share of food product export continued to rise in 2010 and 2011 as well. As to the year 2012, the share of food product export occurred at the level of 6,60%, showing a decrease in comparison with 2011. The said ratio was above 7% in 2013, 2014 and 2015. The year with the lowest share of food product export in total manufacturing industry export between the years 2008 and

2015 is 2008, the one with the highest level is the year 2015. The food product export in 2015 corresponds to 7,63 percent of total manufacturing industry export.

When viewing the ratio of food sector within manufacturing industry in terms of export, this ratio is observed to be 2,5% in 2008 and rise up to 2,62% in 2009. In 2010, food product import rate in total manufacturing industry import was calculated as 2,32%.

The export share of food products between the years 2008-2013 fluctuated between 2,5% and 2,96%. This rate rose up to above 3% in 2014 and 2015. In 2015, food product import composed 3,11% of manufacturing industry import. This rate has the characteristics of the year with the highest export share.

As is seen, the share of food sector export in total manufacturing industry export is higher than import. The export share is in the range of 2,5% and 3,11%, while the export share was between 5,17% and 7,63% in the period 2008-2015. Therefore, it is possible to specify that food products sector is a significant source of export for manufacturing industry and national economy.

## VIII. FINDINGS

Calculations were made for Turkish food products sector by years using RCA index. Two-year and four-year periods were used in calculations in order to understand the course that competitive power followed in years. The RCA index calculated for Turkish food products sector is shown in the Table below.

**Table 5:** RCA Index Values of Food Products Industry by Years

Yıllar	RCA Endeks Değerleri
2001	0,98
2003	0,91
2006	0,95
2008	0,83
2010	0,92
2012	0,98
2015	1,03

**Source:** Calculated from us using TURKSTAT and Trademap data

Fluctuations are seen in RCA index values of food products sector in Turkey between the years 2001-2015. The index value is calculated as 0,98 in 2001. A decrease in competitive power occurred in 2003 comparing to 2001 and index value actualised at the level of 0,91. As for 2006, a rise was seen in competitive power and RCA index acquired the value of 0,95. However, a more clear decrease catches attention in competitive power of Turkish food sector in 2008. It can be said that 2008 global crisis had an effect on this decrease. Because, 2008 global crisis affected Turkey through foreign trade channel at most. Many countries that Turkey does business with were affected from the crisis. This effect showed itself as economic recession, increase in unemployment rate and growing negative expectations. The development experienced in economy seriously pulled down consumption and investment demands. Narrowing of demand also affected foreign trade directly (Öcal, 2011:213-217). It is possible to state that the decrease in index values was resulted from decrease in export with the effect of the crisis. This case means that competitive power was affected negatively. However, the developments arisen is seen not to be permanent. Indeed, RCA index values increased in 2010, 2012 and 2015 regularly. RCA index was calculated as 0,92 in 2010, as 0,98 in 2012 and as 1,03 in 2015. 2015 has the highest index value among the years in the Table. Meanwhile, the only year when RCA index increased above 1 among the years competitive power calculated is 2015. In other years, the index values could not exceed 1 even if they were nearly the level 1. However, it occurred as 1,03 in 2015. As known, RCA value should be above 1 for the competitive power of a sector to be recognized strong. Thus, it is possible to express that Turkish food products sector could be evaluated as having a high competitive power in 2015.

RCA index values reveals the result that competitive power of the food sector in Turkey shows increases and decreases in time but it is in the tendency of increase. This situation can be considered as promising. What is important is to rise the available positive condition more and enhance this rise to be continuous. It can be stated that strengths and weaknesses of the sector should be determined in order to enhance this.

## IX. MAIN PROBLEMS IN FOOD SECTOR

It can be a good step to try to solve the problems the sector faces in order to raise competitive power of food sector in global area. Because, the problems which are faced in the sector may cause food producers in Turkey take a backseat against foreign competitors. However, when considering that how large consumption potential the food products have and it is not possible for a person to continue to live without food products, the importance to be one of the leading countries in this sector in the world can be understood better. Hence, it is quite significant to determine problems of this sector and offer solution suggestions for these problems.

Nevertheless, one should also state that, what is virtually important is that the suggestions offered can provide permanent solutions, rather than developing solution suggestions. Solution suggestions will be mentioned in the following sections, but firstly it can be suitable to express main problems the food products sector faces.

One of the primary sector which food products sector is in interaction with is agricultural sector. It is almost impossible to think food products sector and agricultural sector separately. These two sectors are in a mutual relation with each other. Agricultural sector is the major raw material supplier of food products sector. Without agricultural sector, number and variety of products the food products sector processes and makes ready to be consumed will be remarkably decreased. Therefore, it can be stated that agricultural sector is indispensable for food products sector. Likewise, food products sector has an essential place for agricultural sector. For these reasons, problems faced in agricultural sector or food products sector affect the other sector deeply. As can be understood from this information, changes in agricultural sector reflect to food products sector, as well (Gök, 2012: 104-110).

One of the most important problems in agricultural sector is the low productivity. Farm land usually has a structure divided into small parts in Turkey. This sectional structure of the farm lands causes both for costs to rise and productivity to decrease. The other factor reducing productivity in agricultural sector is related to technology used in production. Today, modern devices and production methods are used in agricultural sector as well as in other sectors. However, it is possible to say that the number of agricultural manufacturers is limited who can keep up with this modern structure. This consists of an obstacle stonewalling the sector. Difficulties concerning pricing can be experienced in agricultural sector, as well as productivity. The prices determined for agricultural products lead to suffering of manufacturers in some cases. That can pave the way for a decrease in agricultural production. Thus, supports made through price should maintain its significance in order to recover producers' suffering. The periods when agricultural support mechanism does not function well can exist in Turkey. Manufacturers' strained condition injures agricultural production and difficulties in agricultural production affect food products sector, as well. Because as mentioned before, food products sector meets the large part of its raw materials from agricultural sector (Ari, 2006).

It can be specified that food sector struggles against other troubles than the ones caused by agriculture. The basic troubles are unrecorded activities, difficulties regarding technical personnel deficiency and structures of the companies operating in the sector. The companies operating as unrecorded consist of a serious problem in food sector. At one side, these companies form an unfair competitive environment for the enterprises conducting their activities within a legal framework, at the other side, they bring about auditing weakness. As known, the products produced in food sector have direct effect on human health. If these companies operate informally, it is not possible to audit them both financially and in terms of human health and it is likely for the products produced there to hold health-threatening components. In addition to this problem, there are troubles regarding structure of the companies in food sector, as well. It is possible to say that the majority of the companies operating in food sector are small scale enterprises. They may have troubles in relation to capital and difficulties to be afloat against competitors and the weak structures they put forth may create a disadvantage for the sector.

Moreover, it can be problematic to find employees with demanded qualifications in food sector. In particular, the fact that required table could not be displayed in terms of providing technical personnel forms one of the weaknesses of the sector (Donduran, Tozanlı ve Ataay, 2007; 195-198).

There are factors in close relation with technology among the problems of food sector, as well. It can be expressed that R&D studies are underestimated, a considerable progress is not made on inclusion of technological development into production process. In many other countries in the world, studies are carried out on technology and innovation and this situation leads to increase production capacity. That Turkey cannot be integrated with this process sufficiently results in taking a backseat against their competitors. Turkey has also problems concerning inspection of food products. It can be said that food inspections are not realized in enough amount and efficiency. In addition to them, the fact that supports and encouragements provided by public bodies fails to satisfy consists of a serious problem with regards to the future and competitive power of the sector (T.R. Ministry of Development, 2014: 57-60).

## **X. STRENGTHS OF FOOD SECTOR**

As raw material sources of food sector are agricultural products, that Turkey has convenient conditions for agricultural sector creates a remarkable competitive advantage for food industry. Turkey is a country holding fruitful farm lands; it is also in a fortunate location in climate aspect. The climate zone where Turkey locates gives opportunity to product range. Besides, agricultural product variety is excessive in Turkey. In addition to these characteristics, Turkey's populous structure is an advantageous fact. Surplus to requirement of labour force continues even if the application level of technological production techniques in food sector. The high young population factor in the country enables not to have difficulties in the matter of the labour power required for food sector. Moreover, the crowded population implies the internal demand to be large. This is a positive situation for manufacturers in food industry. Another limitation of food industry in Turkey is its close

location to the European Union. It is very substantial to be able to deliver products of food sector as quick as possible specifically. Therefore, Turkey's geographical position has the characteristics of an opportunity for the EU market (Bulu, Eraslan ve Barca, 2007: 320-328).

Urbanization rate has been increased in time in Turkey considerably. Urbanization rate in Turkey reached up to 70% in 2010, while this rate was 30% in 1960. A large part of the population lives in cities and people avoids from living in rural areas and dealing with agriculture now. It is possible to say that this situation is in close relationship with food sector. Because, dietary habits of people living in cities shows difference from dietary habits of those maintaining a village life. Those who live in cities can go towards processed food which is faster and more practical due to fast tempo of urban life. It can be expressed that people living in villages are nourished with non-fabrication food produced in home environment. The fact that a large part of the population lives in cities and people consume processed foods creates a big potential for food products sector. Also, development of infrastructure services and transportation opportunities together with increase of urbanization is an advantage for food products sector. It has enabled to reach consumers and reduced logistic costs with developed infrastructure and transportation opportunities. Therefore, high urbanization rate and the progress provided in infrastructure can be specified as one of the strengths of food sector (Tepav, 2013).

The fact that new marketing strategies has been created as a result of the opportunities technology serves and a progress is being made by Turkish food manufacturers in terms of conformance to these methods can be defined as a positive development for the sector. The leading one among these new marketing methods is e-commerce. E-commerce application creates various advantages both manufacturing companies and consumers. By this means they can offer their products to consumers without entering any processes such as making physical investment, opening shops and developing marketing network. As for consumers, they can save time, purchase ant products without going to shops and reduce transaction costs (Sayılı and Büyükköroğlu, 2012: 247). It is possible to say that e-commerce applications are great convenience for consumers within fast tempo of our age. Thus, the fact that e-commerce applications create a big advantage for food products sector should not be ignored.

## **XI. RESULT AND SUGGESTIONS**

Competitive power of food sector was calculated by years based on revealed comparative advantages (RCA) index. It was seen that the competitive power of Turkey in food sector gained approximate values to 1 and it rose up above 1. This situation shows that food sector does not have a quite high competitive power but it is in tendency of rise in time. Despite problems Turkey faced in food sector, it has advantageous aspects that can be improved. To produce right policies and to ensure that strengths are evaluate well are the most important steps for resolving problems. In these circumstances, competitive power of the sector can be move to higher levels. For this purpose, the policies that can be implemented can be specified as follows:

Resolution of the problems regarding raw material in food sector is one the basic requirements. Therefore, standing of production in agriculture should be provided. Determining products to be produced, the products should be preferred which are expected an enhancement of the price and have a large share in world trade. Works should be carried out regarding improvement and dissemination of irrigation systems. Organization among manufacturers should be tried to be ensured. Hence, problems concerning marketing can be solved to some extent (Kıymaz and Saçlı, 2008: 59-65).

Augmentation of R&D activities in food sector is the leading issue, as well. For this reason, companies operating in food sector should upgrade their technological equipments and carry out a production with more modern techniques. One should not forget that use of high production technology is considered as the prerequisite of sustaining competition. For a company to reveal better products means it has a higher competitive advantage. Therefore, thinking production technology separately from production is not possible.

Another policy suggestion that can be offered for food sector is concerning organic foods. It is seen that demand for organic food has moved up quickly nowadays. Organic food sector has experienced a clear transformation in the last twenty-twenty five years in particular. In the past, organic food sector appeared to be a sector of which coordination was weak and which comprised of local networks. However, the sector has reached to global dimensions in time. Now, organic food sector has gained a structure of which production and trade volume shows a rise depending on the increased demand (Raynolds, 2004: 725). Therefore, organic food sector can be seen as a sector with a bright future. One of the policies that can be offered is that Turkey should make the best of this opportunity and try to increase its share in organic food market.

Attaching importance to quality conditions and placing a food manufacturer image who makes no concessions of quality matters. Therefore, the companies manufacturing food products should be followed closely; tight controls should be made on health, hygiene and quality. Because, food products are directly associated with human health and errors to be done concerning those products can have vital results. The way to prevent this is to make more efficient control with shorter intervals. Standards on quality should be revised and tried to be optimized. Furthermore, practices of incentive systems for manufacturers should be popularized,

financial and technical support should be provided to the companies carrying out food production (ICC, 2006: 100-105).

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