Measurement Of The Competitiveness Of Turkey : Eu Countries, 1980-2010 Period Comparison

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Abstract

Today, in the new world order caused by economic glabalization, technologic and political changes in world economy result in changes in the competitiveness of the countries. Everyday, countries intensify their effort to gain, develop and protect their power to compete with other countries. Today, even the most developed countries are trying to strengthen their competitiveness in order to enlarge their share in the world economy. Turkey desires to increase its competitiveness in all sectors in order to rise the welfare level of its people and to speed up its economic growth. Turkey endeavors to increase its competitiveness against EU, who is one of the most important economic partners of Turkey, in all sectors. In this study, the period of 1970-2011 to measure the competitiveness of Turkey towards the EU countries and aims to achieve predictions for the future, and the watermark.

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1.INTRODUCTION

The common objective for all the countries in the changing world order is to provide competition conditions and increase the prosperity.However,competition is a multidimensional fact. Competitiveness of the countries and companies is depended on various factors. The importance of competitiveness has increased after the rapid change and development with the globalization in every sense. Studies about competition and competitiveness in countries also have increased.

Since competition and competitiveness are handled by various discipline in various aspects, there is no a common definition or measurement technique. However, if we want to classify in general,there are two points of view in the measurement of compititiveness. The first one is the studies carried out in micro (business and industry) level.The second one is the macro (country) point of view. While the competition among businesses inside the country and the effects of this competition on national and international market is emphasized in micro level approach, the status of the country in international competition is emphasized in macro approach. Competitiveness means that while countries try to increase the incomes of their citizens under the conditions of free and established market, at the same time they can present their products and services to the international markets and become successful. The definition mostly attributed in macro approach is this one.

We can put in order the three basic characteristics of competitiveness according to the study results like this:The first one is that the main objective of having competitiveness is to provide an increase the living standards in the country and the prosperity of the citizens.This prosperity increases can be provided by paying attention to the activities like investment and production,increasing the cooperation between all institutions and paving the way for specialization.The second one is that the country should focus on its specific features,abilities and potentials in order to catch the opponent countries in producing the products and services and distributing them.The third one is that numerous indicators are used to analyze the competitiveness of the country. For instance, international market share,trade balance of the country,production,employment,openness.i.e.

The competitiveness of Turkey with 15 basic countries of EU between 1980 and 2010 periods was tried to be measured by the globalization index measuring the competitiveness. It was aimed to make predictions for the future according to the upcoming results.

This study consists of four sections. In the first section literature scaning was carried out.In the second section data set and method was presented and explained. In the third section there are analysis results.In the fourth section a general evaluation will be carried out and recommendations will be made.

1.1.LITERATURE REVIEW

Theoretical foundations of international competitiveness date back to classical economics. There are several numbers of approaches such as the Theory of Competitive Advantage Approach,Double Diamond Approach, Nine Factors Model Approach for international competitiveness.The issues such as the definition of international competitiveness concept, assessment, explaining the determiners for this concept and stating the economic relations of it ranges according to the chosen approach.So there is no generally accepted approach for international competitiveness.(Kibritçioğlu, 1996:112). In theoritical context, there is no

certain consensus about international competitiveness and the factors affecting it and also it is not possible to say that the explanations are complementory each other.

The concept of international competitiveness is one of the significant facts of the globalization process. The concept of international competitiveness in literature is handled and tried to be defined in three different ways as in firm,sector and international level. (Kesbiç ve Ürüt, 2004: 56-59).

Neither there is a generally accepted approach for the definition of the concept of international competitiveness,nor there is an approach for assessment and determining the factors affecting it. In international economy literature, macroeconomical,microeconomical and commercial approaches are generally used in order to assess the competitiveness in internatinal trade. Among these approaches, the commercial approach is based on the theory of international foreign trade and it searches the foreign trade performance of sector/country.As a part of commercial approach, international competitiveness can be calculated via the Revealed Comparative Advantage Index which was built up by Balassa in 1965. (Wziatek-Kubiak, 2003: 2-4). In order to assess international competitiveness many indices are also used in literature such as The Relative Export Advantage Index, The Relative Import Influence Index, The Relative Trade Advantage Index, Intra-industry Trade Index,Specialization in Export Index,Similarity in Export Index,Relative Competition Advantage Index,i.e. (Altay ve Gürpınar, 2008: 262-267).

When we deal with the factors affecting the international competitiveness, many factors are used such as micro and macro economical, price and out of price, within firm and non-firm,structural,qualitative,social and political,i.e.In economy literature, many qualitative and quantitative factor affecting the competitiveness are handled,but price- oriented factors are usually emphasized for the ease of finding data and assessment. In other words, in the factors affecting the international competitiveness and its assessment issues there are versatile studies in economy literature.However, depending on the time, as a result that developing countries began to compete more than with developed countries, studies on the efficiency of the factors affecting the international competitiveness began to increase.In this sense, many economic variables were handled and labor cost, foreign exchange rate, market volume(GDP) and openness were mostly used variables.

So we can collect the studies in four main titles (Yapraklı, 2011: 377-379) : First group studies searched the relationship between the labor costs and competitiveness. As a determiner for competitiveness labor cost is the contraversial field.Studies about the effect of the cost of labour on the international competitiveness was performed by Fagerberg (1988), Jorgenson and Kuroda (1991), Guerrieri and Mecliciani (2005). As a result of these studies, it was found out that the high price level in the labor costs meant high productivity and qualified labour employment.This result is the indicator of the efficient source usage and productivity-cost advantage and it affects the international competitiveness positively. On the other hand, Agrawal (1995), Wang (2002), Omel and Varnik (2009) and Du Toit (2010) found out in their studies that high labor costs had a negative effect on the competitiveness.As a conclusion, we can not say that there is a certain consensus about the effect of labor cost on the international competitiveness.

Another variable used to measure the factors affecting the international competitiveness was intended for assessing the relationship between market volume and international competitiveness. The common view about this issue is that: Expansion of market volume increases the competitiveness. Studies about this issue was carried out by Fagerber (1988), Kim and Mirion (1997), Esterhuizen (2006), Mu and Zhang (2010) and Feinberg and

Weymouth (2011). As a conclusion of these studies it was identified that Gross Domestic Products of the countries was a significant factor for international competitiveness. Also the expansion of market volume increases the international competitiveness by benefiting from scale economies and providing efficient source usage. However, it was found out that GDP was not enough to explain the international competitiveness in the studies on developed and developing countries by Cho, Moon and Kim (2008).

An another variable used to measure international competitiveness was foreign exchange rate. In the studies measuring the effect of foreign exchange rate on international competitiveness by Yoshitomi (1996), Zawalinska (2005) it was identified that the increase in the exchange rate affected the international competitiveness positively. However, in the studies by Safin and Rajtar (1997), Du Toit (2010) it was identified that the increase in the exchange rate affected the international competitiveness negatively. As a result, it is necessary to present the certain effect of the foreign exchange rates about increasing or decreasing the competitiveness.If the positive effect is bigger than the negative effect,the increase in foreign exchange rates affects the competitiveness positively; if the nagative effect is bigger than the positive effect,it affects the international competitiveness negatively.

Also in some studies measuring the international competitiveness openness was used. Openness degreee of a country is usually measured by the proportion of its GDP to its foreign trade volume(export+import) (Kazgan, 1988: 116). In the studies by Fagerberg (1988), Feinberg and Weymouth (2011) and Egbetokun (2011), it was found out that there was a positive effect between openness and international competitiveness. This result was obtained by the country's becoming more competitive due to the reasons such as efficient resource distribution,production increase and technology transfer while the openness degree increased.

Globalization Index in our study is based on the method used in the build of Human Development Index of United Nations Development Plan (UNDP). (Çoban ve Çoban, 2004: 167). In the study by Çoban and Çoban (2004), competitiveness of Turkey and European Countries between 1970 and 2010 periods was analyzed by GI(Globalization Index) developed by A.T.Kearney Consulting Company. Even when country experiences took into consideration, it was found in

the study that competitiveness of Turkey increased remarkably and accession to the EU would affect this process positively.

2. DATA SET AND METHOD

In this study a comperative competitiveness of Turkey with EU countries between 1980 and 2010 periods was to be expressed with the help of GI(export + import / GDP) , globalization index in goods and services. The data set in the analyses which was consisted of total export,total import, foreign direct investments,population, the number of incoming and outgoing tourists to the country, domestic loan volume, the number of internet users and GDP series in terms of countries was collected from the World Bank database. (www.worldbank.org).

The issues such as economic integration, political links,technology and personal communication which are considered to be an a factor for the globalization can be expressed parametrically with the help of globalization index called shortly as KFP and used to measure the international competitiveness of the countries. With the use of globalization index the issues such as international affairs and policies, commercial and financial movements, human

mobility, thougts and international data flow can also be embodied.So competitiveness can be explained more significantly.(A.T. Kearney, 2001).

Globalization Index is originally based on the method used in the build of UNDP (United Nations Development Programme) Human Development Index. At first step the variables to be used in the index are identified and then quantitative measurements of the variables involved are carried out. The obtained quantitative values after these two steps are normalized to clear the problems which can be seen in various variables identifeid with different modules.16. For example, before normalizing the two variables such as avarage life span(year) and GDP in human development index, the second one approaches nearly one hundred times of the first one.At last,the aggravated sum of normalized variables which gives a numerical result for each country is checked out.

In the globalization index consisting of 11 variables17 the weights of variables used in index calculations are drown up in Table-1 (Lockwood, 2001: 5).

Tablo-1: The Variables in Globalization Index

Category	Variable Name	Variable Definition	Weights
Globalization in goods and services	Commerce	(Export +Import) / GDP	1
	Convergence	GDP according to Nominal GDP/PPP*	1
Financial Globalization	Income	(Loans + Depths) / GDP	1
	Foreign Direct Investments (FDI)	(Incoming FDI + Outgoing FDI)/ GDP	2
	Portfolio Invetments (PI)	(Incoming PI + Outgoing PI) / GDP	2
Globalization in Personal Communications	Tourism	(Incoming Tourists Number + Outgoing Tourist Number) / Total Population	1
	Telephone	International phone call to and for per individuals(Minute)	2
	Transfer payments	(Loans + Depths) / GDP	1
Internet Connections (Personal connections)	İnternet Users	Internet Users/ Total Population	2/3
	İnternet Sites	Number of servers for each one million people	2/3

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16 Normalization (standardization) is the operation of changing the scale of any varibales,in other words,transforming the measurement units of the involved variable to standartd Z (Z variable with zero avarage , one variant and normal range) units .(Koutsoyiannis, 1989: 548-549).

17 Vide infra for the involved variables: http://www.atkearney.com (03.09.2003).

	Security Servers	Number of security servers for each one million people	2/3

*PPP: Perchasing Power Parity

When Table-1 is observed, we can see that globalization index was calculated by considering four categories as globalization in goods and services, financial globalization, globalization in personal communication and internet connection. The degree of economic integration is calculated by combining the data about international trade, foreign direct investments and capital flows, wages for foreign workers and workers exchange rates in globalization index. Also the index embodies the international technological communication by regarding the number of internet users, internet sites and security servers.

3. ANALYSIS RESULTS

Competativeness of Turkey with EU countries was comperatively analyzed via globalization index developed by A.T.Kearney Consulting Company in this study.

Index values calculated by us and given in Appendix-1 were also displayed in Figure-1 and Figure-2 with a summary like approach reflecting the globalization trend in terms of competitiveness.

There are periodical avarages of globalization values of the countries between 1980-2000 and 2001-2010 periods in Figure-1 indicating the development of globalization index in terms of periods.

When Figure-1 is observed, we can see that Denmark is in the first in both periods in EU countries. Sweden is the second in both periods, too. Considering the periods of 1980 and 2000 Luxemburg, Holland and Belgium follow Denmark ve Sweden in turn. In the studies by Çoban ve Çoban'ın (2004); Austria holds its fourth place in both of the periods between 1970-1985 and 1986-2001. According to the periods of 1970 and 1985 Denmark, Sweden, Finland, Germany, England, Greece and Italy receded for a row in the period of 1986 and 2001. The ninth country of the period between 1970 and 1986 and the full member of EU in 1986 Portugal showed a significant development and it climbed up to the fifth place. The twelfth country of the period of 1970 and 1985 France climbed up to tenth place in the periods of 1986 and 2001.

Figure- 1: Development of Globalization Index in Terms of Periods
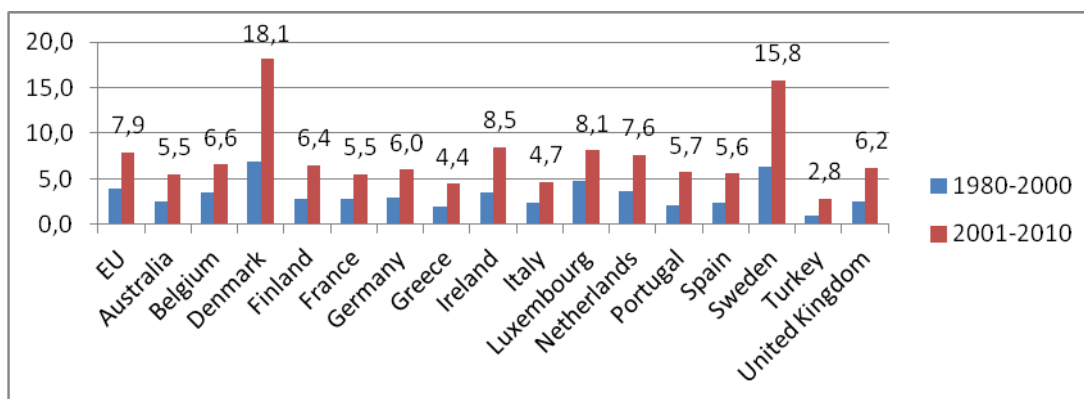
In the studies by Çoban and Çoban (2004) again, we can see that Denmark is again the first in the periods of 1970 and 2001. Ireland,Holland,Austria and Denmark followed this country in turn.In the periods involved the countries having important roles in EU such as Germany,England,France and Italy were quitely in back rows. Also when the avarages are taken into consideration, EU countries avarages are 3.55 in the periods of 1970 and 1985,4,23 in the periods of 1986 and 2001 and 3.89 in the periods of 1970 and 2001. Turkey,which is in the developing countries category and the arguments about EU membership has increased recently, was in the last place in all three periods.However,when the figure in Appendix-2 is observed,we can an increase trend in globalization index of Turkey since 1996 when Customs Union happened. This means that accession of Customs Union affected the competitiveness of Turkey positively.

The changing of index values indicated on Figure-1 in terms of periods are as in Figure 2.

Figure 2: Change of Index Values In Terms of Periods (%)
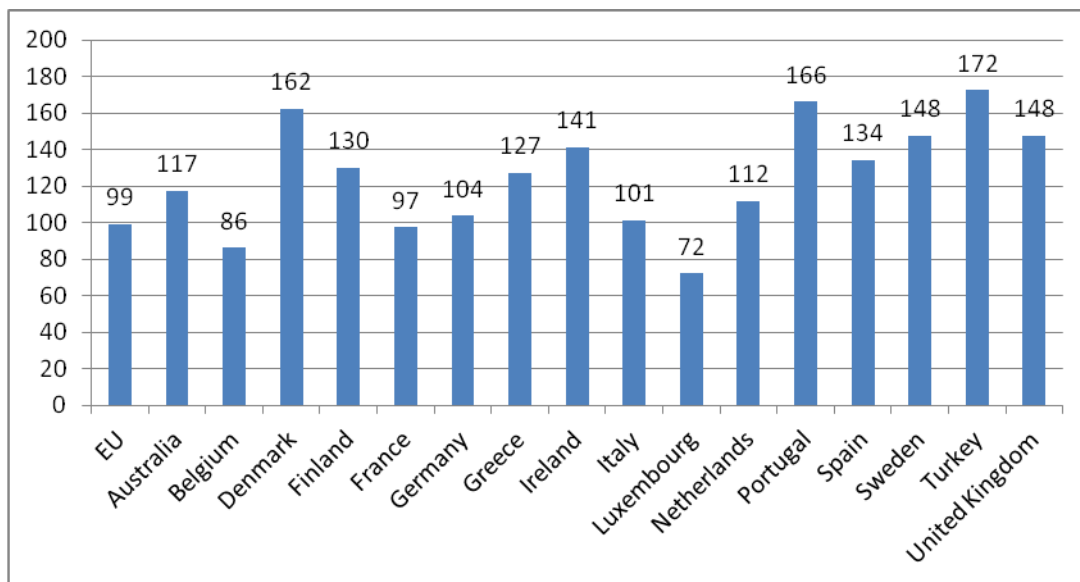
According to Figure-2 the changing rate avarages of the periods of 1980 - 2000 and 2001 - 2010 is 0.99 in EU countries and this means that globalization index of EU countries increased in the rate of %99 in the periods involved.

When the change in terms of periods in globalization index for Turkey is observed, it was found remarkable increases.The involved change rate was 1.72 between 1980-2000 and 2001-2010 periods.This means that globalization index of Turkey has increased in the rate of %172 form 1980 to 2010.These increase rates are above the avarages of both EU and EU countries and they indicate that competitiveness of Turkey has remarkable increased in time.

4. GENERAL EVALUATION AND RECOMMENDATIONS

Competativeness of Turkey with EU countries was comperatively analyzed via globalization index developed by A.T.Kearney Consulting Company in this study as the periods of 1980 and 2010 are considered.

Periodical avarages of index values in the period of 1980-2000 and 2001-2010 are taken by the globalization index. As a result, it is observed that Denmark is the first country in both periods. Sweden is the second in both periods,too. Considering the periods of 1980 and 2000 Luxemburg,Holland and Belgium follow Denmark ve Sweden in turn.

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Çoban and Çoban (2004)'s studies contains the periods of 1970 and 2000 and our study contains the periods of 1980 and 2010.When Çoban and Çoban (2004)'s study and ours are evaluated together, it can be said that competitiveness of Turkey has remarkably increased in the periods used in the analysis and the accession in EU would affect this process positively as the experiences of the countries considered.

Accoriding to the results of both studies, we can say that Turkey which has a young and active population is in a good position in terms of international competitiveness and follow right policies in its foreign trade and it increases its competitiveness every year The only recommendation can be focusing on the production and export of the capital-intensive products and products with high foreign trade incomes in the increasing competitiveness.

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