



## Effects Of Trade Liberalization Policies Implemented In 1980-2018 Period On Turkey's Economic Performance

1980-2018 Döneminde Uygulanan Ticaret Serbestleşmesi Politikalarının Türkiye'nin Ekonomik Performansına Etkileri

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### ABSTRACT

The liberalization of trade in world economies or the restriction of trade with interventionist approaches are discussed from past to present. Throughout history, in economies, the aim was freedom of trade, while in reality, interventionist approaches have been mentioned. Today, the concept of liberalism has been replaced by globalization. In this study, firstly, the studies dealing with the relationship between trade liberalization and economic growth of developed; developing and less developed countries are examined. In some East Asian countries, it is seen that there is increase in exports and a positive relationship between trade freedom and growth. However, in some African and Latin American countries this has not happened. Trade liberalization policies and economic packages and programs in Turkey have been gaining momentum since 1980. The aim of this study is to examine the direction of the relationship between trade liberalization and economic growth in Turkey. The study obtained an index expressing trade liberalization using GDP, import and export data. As a result of the study, it was determined that the relationship between trade liberalization and foreign trade volume in Turkey is in a positive direction.

**Keywords:** Trade Liberalization, Exports, Imports, Turkish Economy

### ÖZET

Geçmişten günümüze dünya ekonomilerinde ticaretin serbestleşmesi ya da ticaretin müdahaleci yaklaşımlarla kısıtlanması tartışılmaktadır. Tarih boyunca ekonomilerde amaç ticaretin serbestliği iken gerçekte çoğu kez müdahaleci yaklaşımlar söz konusu olmuştur. Günümüzde liberalizm / serbesti anlayışının yerini küreselleşme kavramı almıştır. Bu çalışmada öncelikle gelişmiş, gelişmekte olan ve az gelişmiş ülkelerin ticaret serbestleşmesiyle birlikte ekonomik büyüme arasındaki ilişkiyi ele alan çalışmalar incelenmiştir. Bazı Doğu Asya ülkelerinde ticaret serbestliği ile büyüme arasında pozitif bir ilişkinin olduğu ve bununla beraber ihracatlarının arttığı görülmüştür. Ancak bazı Afrika ve Latin Amerika ülkelerinde ise bu durum gerçekleşmemiştir. Türkiye'de ticaret serbestleşmesi politikaları ve buna yönelik ekonomik paket ve programlar 1980 yılından günümüze hız kazanarak devam etmektedir. Bu çalışmanın amacı, Türkiye'de ticaretin liberalleşmesiyle birlikte ekonomik büyüme arasındaki ilişkinin yönünü incelemektir. Çalışmada GSYİH, İthalat ve İhracat verileri kullanılarak ticaret serbestleşmesini ifade eden bir indeks elde edilmiştir. Çalışmanın sonucunda, Türkiye'de ticaretin serbestleşmesiyle dış ticaret hacmi arasındaki ilişkinin olumlu yönde olduğu tespit edilmiştir.

**Anahtar kelimeler:** Ticaretin Serbestleşmesi, İhracat, İthalat, Türkiye Ekonomisi

### 1. INTRODUCTION

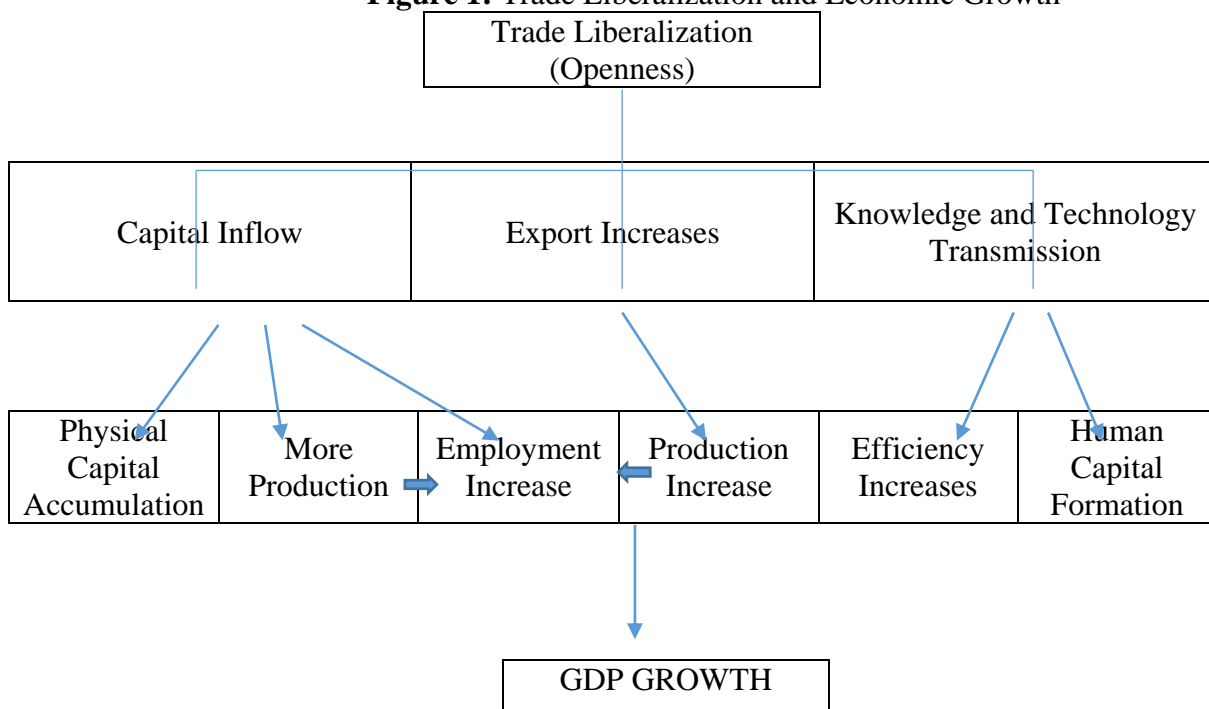
In last decades, the concept of trading is changed in the international trade and became the new shape of trade liberalization, which is important for each economy. In addition, it created the

World Trade Organization in 1990s after 50 years of discussion among countries (Dinç and Üçüncü, 2016).

### 1.1. The Relationship Trade Liberalization with Volume of Foreign Trade and Economic Performance Indicators

In figure 1 shows how GDP growth effected and increased by trade liberalization though increasing the capital flow, export increase and knowledge and technology transmission. It shows how the trade liberalization effects, positively, the GDP growth rate and decreasing an unemployment rate as indicators of economic performance. Trade Liberalization has three pillars, capital inflow, Export increases and knowledge and technology transmission. Firstly, the trade liberalization easily allows capital inflow included the physical capital accumulation, and expanding investments as well as FDI. It enhances to increase the production and, later, more production as the result the unemployment rate decreases. This leads also to increase the market sizes. In addition, the trade liberalization enhances to increase the exports of some sectors of the production and services. However, in figure 1, it does not mention, which is about the effects of imports. For general view, it is realized that the trade liberalization enhanced to increase the imports well rapidly than exports in developing countries and some emerging countries (some Latin American and African countries). Lastly, the knowledge and technology transmission and innovation normally increase human capital formation as well as productivity, which leads to develop the economy of such a country. Hence, from above, there is positively affect the growth rate, generally, in the long-term as a strategy.

**Figure 1:** Trade Liberalization and Economic Growth



**Source:** (Şahin, 2016).

### 1.2. Washington Consensus

By the 1980s, the neoliberalism was derived or the Washington Consensus by the US Treasury, the World Bank and the IMF. The prescriptions consist of two phases:

first, short-term policies for macroeconomic stabilization via ‘big bang’ reforms as carried out quickly. and mentioned to the price liberalization by ending the subsidies and price control; and

the second, long-term policies to change the structural change via the detailed microeconomic reforms. Moreover, in this phase, the reform towards the reduction and then elimination of tariffs and quotas; the Liberalization of capital and free movements of goods without borders and foreign exchange controls (Engel, 2010).

### **1.3. Post Washington Consensus**

By the late 1990s, there was a new approach called a New Institutional Economics (NIE), which become, later, one of the major influences on development economics and international trade as labeled the post-Washington Consensus, which improving the economic growth and combing poverty as well. (Engel, 2010).

### **1.4. The Difference Between the Trade Liberalization and the Trade Performance**

Trade liberalization is based on a policy (for example: decreasing tariffs and quotas gradually), which depends on a plan for a long term or/and strategy. It leads to the trade openness as an actual outcome, but the trade openness does not directly imply to the trade liberalization. There are some degrees of the openness although exist barriers, for example quota for imports or imposed tariffs of some goods. East Asian countries, China as an example, there are still some quotas for imports and tariffs for many goods, has the trade openness and ratio of exports to GDP, as an indicator of trade openness, is high and increasing, but has not a trade liberalization.

Some researchers mixed between trade liberalization and trade openness and it can be used some indicators for both, as the volume of foreign trade by adding the exports and imports. In addition, it viewed that the trade liberalization in some African countries, has the trade openness and increasing the foreign trade, especially increase rapidly the import because there is no production base. On the other hand, trade liberalization increases both exports and imports by the according to the theory of comparative advantage. In this point, both trade liberalization and export-promotion are synonymous. The trade liberalization is as a result of the trade openness (Subaşat, 2008).

In figure 1 shows both are leads to growth rate and increase GDP, decreasing of an unemployment rate as indicators of economic performance. In addition, Trade liberalization promotes the volume of foreign trade (export and import), which is used as an indicator for demonstrate it. In china, we find this volume is high, as the result of high trade openness, by increasing the exports.

### **1.5. The Link Between the Trade Liberalization and the Trade Openness in the Economic Schools**

There are two views in the economic theory. The first is the new classical economics and the other is the heterodox economics.

#### **1.5.1. The New Classical Economics**

In the new classical economics, the trend of the trade liberalization increases both exports and imports, as mentioned above, which the market becomes more efficient. The trade openness requires the trade liberalization, which is the sequence of the trade openness (Subaşat, 2008).

#### **1.5.2. The Heterodox Economics**

In the heterodox economic theory, the correlation is weak positive between the policies of the liberal trade and the trade openness. The reason of positive link between the trade openness and the trade liberalization, can be calculated as the proportional of the trade performance to the trade liberalization (Subaşat, 2008).

## 2. THE EXPERIENCE OF TRADE LIBERALIZATION IN THE WORLD

Generally, when mature industry reaches its level, it is necessary for an economy to reach to the trade liberalization. It is mentioned that long term of the trade liberalization is affected by this policy during the time in different type of several industries in order to be harmonious of such an economy. On the other hand, the trade liberalization has not significant relationship with economic growth rates in short to medium-run (Shafaeddin, 2005) on the other hand, mentioned that under the Washington Consensus, the trade liberalization is leading to the destruction of infant industries or some other industries.

Some policies in such economies came into inverse effects, as rapid liberalization for an example. It was normally followed by large inflows of capital, the currency appreciation and increasing the trade deficits. On the other hand, it often ended up with a crisis (financial, economic or both) involving capital outflows, collapse and overshooting of exchange rates with hyperinflation, and then leads to sharp cuts of imports and a deep economic contraction/ recession, at least. Sonner or later, the economy comes into crisis and it might be collapsing many sectors of industries and weak performance (Shafaeddin, 2005).

### 2.1.Previous Studies: The Link Between the Trade Liberalization and the Trade Openness

According to the Dollar index, there is very strong correlation between this index and the economic performance, but it is without relation between the index and the trade performance (Subaşat, 2008). Santos-Paulino and Thirlwall have argued and confirmed the correlation between that the trade liberalization and the exports and imports performance, which has significant effect in many selected developing countries. However, there is an argument that that the trade liberalization has worsened the balance of trade (and payments) for increasing rapidly imports than exports. This argument is conferred by the economist, Morrissey (Subaşat, 2008).

Mentioned that there is no evidence for the relationship between the trade liberalization and the trade performance. In the empirical study, firstly, there is very strong link between GDP per capita and the policy of trade liberalization. Secondly, GDP per capita has a positive relationship with the export intensity, but has a negative link with the import intensity. Therefore, this can lead that the countries become stronger of their economies performance. This implies about middle and high- income countries, but the low-income countries tend to face more obstacles more concern of agricultural goods with absent of solid industrial sector (Subaşat, 2008).

In addition, (Subaşat, 2008) concluded that the empirical study has no evidence between the trade liberalization and the trade expansion.

In most countries, there is a developing the capacity of their competitiveness by having either the promotion of exports or allowing the free trade (Trade liberalization). This leads that there is not a unique policy of trade liberalization to be benefit for all countries, which is operating under different conditions (Subaşat, 2008).

### 2.2.The Success Experience of Trade Liberalization in East Asia Countries

East Asian countries were becoming dynamic exporters of new technology-intensive products and reach to mass production. Therefore, the cost of the product came lower and the cheapest price among others, which leads to be more competitive in international trade. Hence, the exports increase in absolute value and ratio to GDP as well (Ben, Mustapha and Jallab, 2007), (Shafaeddin, 2005) found forty percent of the sample countries, mostly are East Asian countries, have shown fast expansion of exports of manufactured goods that upgrading of their industrial base and expansion of industrial supply capacity. On the other hand, it comes under the policy of the protection of industries with direct and indirect subsidies to their exports. In the time, East Asian

countries have the trade openness policy in order to promote their exports, but not trade liberalization policy. In this side, it should be made the distinction between two policies (Subaşat, 2008). Finally, the trade policies of the East Asian countries are the result of complex combination between openness and restriction, the object is to help their economies build on competitive advantage of exports (Ben, Mustapha and Jallab, 2007).

### **2.3.The Experience of Trade Liberalization in African and Latin American Countries**

The experiences of most African and Latin American countries are not appeared as successful, but the growth of manufactures' exports was slow or moderate (Shafaeddin, 2005). Mentioned that half of the sample countries faced de-industrialization, mostly low-income countries, which are more vulnerable to the trade liberalization policy, except Chile and Argentina that have high rate of manufactured exports (Shafaeddin, 2005).

In Africa, it is clear that trade liberalization has not affected to promote and increase in growth rates or improve their economies' performance. Therefore, this policy has an inverse effect to the African countries' economies. More deeply, the current account deficits on African economies have increase because of the trade liberalization policy during the period 1980-1999. The rapid liberalization has often caused financial and economic crisis as well as the debt trip in many countries, especially Latin American countries (Ben, Mustapha and Jallab, 2007), (Parikh, 2004).

## **3. THE TRADE LIBERALIZATION POLICIES IN TURKEY**

In this section, the researcher has demonstrated about the trade liberalization policies in Turkey since 1980 to 2018 and how it can be affected the foreign trade by the time although the crises in the Turkey, locally and internationally. In this section, the result demonstrated by a qualitative method analysis.

### **3.1.The Trade Liberalization in Turkey in 1980s.**

The trade liberalization is important to enhance the economy to foreign competition. In one hand, the liberalization of imports allows the entrance of foreign products to the domestic markets, which leads to international competition pressure to these markets. On the other hand, the promotion of exports of domestic products lead to compete with other rivals in foreign markets.

In the beginning of the year 1980, it was a major structural transformation in international trade, as trade liberalization policies appeared, in the world and Turkey as well. An economic report was prepared by the end of 1979, came into force on 24<sup>th</sup> January 1980 as an economic reform, with the aim of resolving the actual economic problems and coping the future problem by doing more efficient policy of commerce in Turkey. This leads to the new era of has already begun in the commercial life, especially export oriented industrial policy and a free trade policy, both exports and imports, by removing barriers of trade. It is an integral part of the economic policies since 1980s, which can be taken into effect by the time. For achieving this goal, the Turkish Government, by the Ministry of Trade and Customs, has followed the policy of trade liberalization to encourage the exports by applying promotional programs and established the "EXIM Bank" in 1987 in order to increase the competitiveness of the exports in international market. The implementation of trade liberalization policies yielded positive results by years. The Turkish Exports of industrial product increased, while the agricultural product declined in values. Then, the Turkish economy had an outward position and integrated with other countries (Dinç and Üçüncü, 2016). (Atabay, 2016), (Kar, Peker and Kaplan, 2014).

The table 1, between years 1980-1989, shows the increasing of the volume of foreign trade in absolute values and percentage (with exception of year 1986. In 1987, it shows the percentage jumped more than 30%. It reflects the result of effective trade and economic policies. In addition,

the ratio of exports to imports increased from 0.37 in 1980 to 0.74 in 1989. Moreover, in figure 2 shows the volume of foreign trade increased gradually in 1980s.

### **3.2.The Trade Liberalization in Turkey in 1990s.**

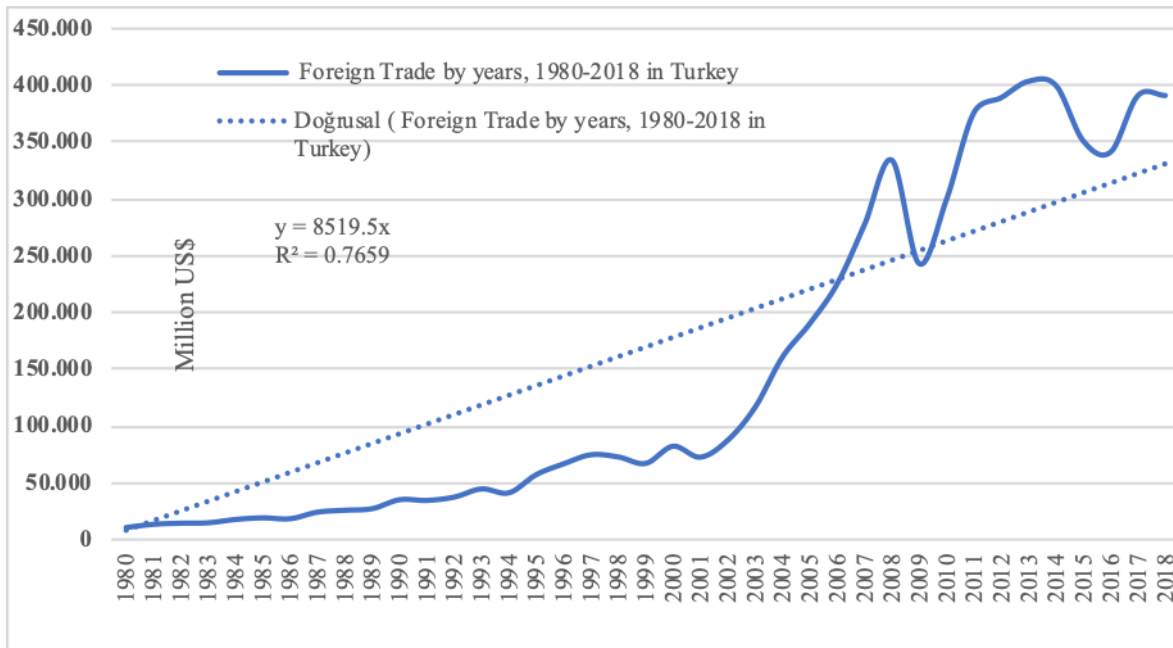
The deterioration in macroeconomic stability became clear in 1994, which negatively affected the Turkish economy, and in this case the volume of foreign trade decreased by 7.4%. Therefore, an economic package for 14 months plan was put into practice on 5<sup>th</sup> April 1994 with purposes of reducing inflation, restoring the stability to Turkish Lira and conducting structural reforms that improve social development. This package increased Turkey's competitiveness in the international market and exports. In addition, this development, Turkey joined as a member to the World Trade Organization (WTO) in 1996. Moreover, in the same year, Turkey has entered into a new era by signing a Customs Union Agreement with the European Union (EU). This was the second of the most important development, after the liberalization program in 1980, affecting the Turkish economy. Then, Turkey have reduced the tariffs to countries that signed a Preferential Trade Agreement (PTA) with the EU (Kar, Peker and Kaplan, 2014).

In figure 2 shows the shift of the volume of foreign trade in 1995, which means the strategy of linearization, including the trade liberalization came into effects. In addition, figure 3 shows it increased less than 40%, while, in table 1, the exports increased about 20%, but imports increased 53.5% and the balance of foreign trade shifts to 172.5%. Therefore, it implies that the package reform in 1994 and continuing the same policy by taking into account the time effects, year by year. In addition, in figure 2, the fitted line, which stats from the beginning, while the  $R^2=0.7659$ , and  $r=0.8752$ . ( $r$ ) means, the correlation between the volume of foreign trade and years comes more than 87%, which considered is very well.

### **3.3.The Trade Liberalization in Turkey in Years 2000-2018**

Although the crisis in February 2001 occurred in Turkey, the ratio of exports to imports came to 76% due to the increasing of exports and declining in imports. The economic reform started in 2002, which began again the shift of growing, rapidly, the export increased by 15% in 2002 and imports increased also more than export by 25.5% in the same year, as shown in table 1. Moreover, the volume of foreign trade increase by 54% in year 2002. From given data and as known the trade policies, the new era has been started in 2002. In addition, in 2004, "Export Strategic Plan" put into effect in order to achieve sustainable growth in the exports. In parallel with this development, Turkey's exports followed a continuously growing structure in the next years as well as the number of countries has increased of Turkish exports. From the mentioned plan, the exports of industrial products come in the first place, and then agricultural products in the second and lastly, exports of mining products rank in the third place in the Turkish economy. However, the world crisis 2008-9 affected the Turkish economy and, of course, the volume of foreign trade decreased in year 2009, as shown in figure 2, figure 3, and table 1 (Dinç and Üçüncü, 2016).

**Figure 2:** The Volume of Foreign Trade in Turkey (1980-2018)



Source: (TÜİK, 2019a), (TÜİK, 2019b).

Hence, the researcher's view, it is to analyze the trade liberalization policy in Turkey after the crisis 2001, as considered the current situation, which is stated in the beginning of year 2002 until 2016, except the world crisis 2009, which affected the Turkish economy. Figure 3 shows also are several years, the percentage change of the volume of foreign trade are negative during the financial crisis in years, for example, 1994, 1999, 2001, and, specially, 2009 was 27%. It means, the financial and economic crisis affects the volume of foreign trade, in both export and import.

The period (2002-2014) is 12 years as long run, which is enough time in order to realize the results of trade liberalization strategy and its policies, taking into consideration the Lucas critique. For this reason, the researcher mentioned to figure 4, where  $R^2 = 0.8305$ ,  $r = 0.9173$ . Therefore, the correlation is 91.13 %, which is the solid relationship between the volume of foreign trade and period, represented by years. It reflects the result of trade liberalization policies, especially, after reform of the plan in year 2004, which comes in the hand. This the argument and analysis of shift of Turkish trade liberalization policies effects positively the Turkish Economy performance as trade expansion since 2002 to the present as well as the exports, imports and the volume of foreign trade increased. In 2018, percentage change in foreign trade become zero and ratio of the export to the import is 75 % is the highest since 2001, while, in 2017, the total foreign trade increases by less than 15%.

#### 4. MEASUREMENT OF TRADE LIBERALIZATION IN TURKEY

In this section, it used the quantitative method, as the Trade Liberalization Index (TLI). It is shown in table 2, by using the calculation method and its equation.

##### 4.1.Measurement Method of Trade Liberalization Index (TLI)

It is to use quantitative method to measure the trade liberalization in one question. This called "Trade Liberalization Index", (abbrev. TLI or TL), as mentioned in equation 1.

$$TL = 0,9852L(M/Y) + 0,9991L(OPEN) + 0,98L(X/Y) \quad (1)$$

The following ratios should be calculated to obtain a Trade Liberalization Index (TLI), whereas:

- (M/GDP) or (M/Y): the ratio of Import to GDP,
- (X+M/GDP) or (OPEN): The Foreign trade to GDP ratio
- (X/GDP): The Export to GDP ratio

Where  $L$  denotes the logarithm. (Kar, Peker and Kaplan, 2014).

**Table 1:** The Volume of Foreign Trade in Turkey, 1980-2018 (Million US \$).

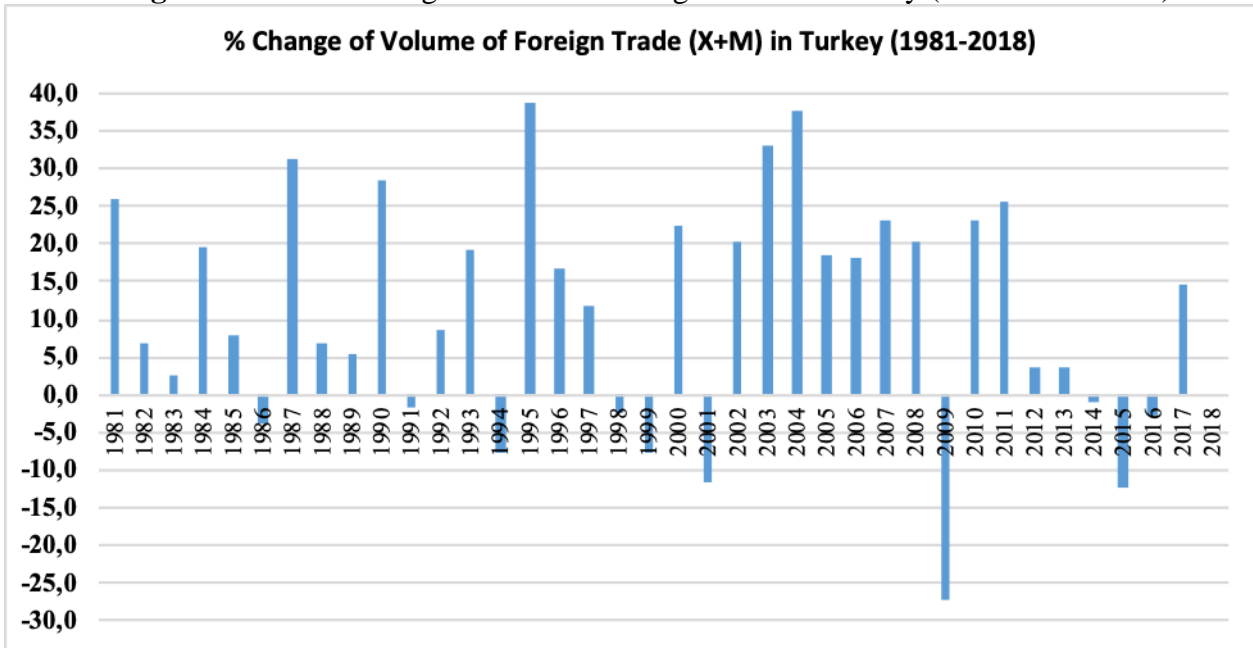
	Exports (X)		Import (M)		Balance of Foreign Trade (X-M)		Volume of Foreign Trade (X+M)		(X/M)
Year	Value	Change %	Value	Change %	Value	Change %	Value	Change %	
1980	2,910	28.7	7,909	56.0	-4,999		10,819		0.37
1981	4,703	61.6	8,933	12.9	-4,230	-15.4	13,636	26.0	0.53
1982	5,746	22.2	8,843	-1.0	-3,097	-26.8	14,589	7.0	0.65
1983	5,728	-0.3	9,235	4.4	-3,507	13.2	14,963	2.6	0.62
1984	7,134	24.5	10,757	16.5	-3,623	3.3	17,891	19.6	0.66
1985	7,958	11.6	11,343	5.4	-3,385	-6.6	19,301	7.9	0.70
1986	7,457	-6.3	11,105	-2.1	-3,648	7.8	18,562	-3.8	0.67
1987	10,190	36.7	14,158	27.5	-3,968	8.8	24,348	31.2	0.72
1988	11,662	14.4	14,335	1.3	-2,673	-32.6	25,997	6.8	0.81
1989	11,625	-0.3	15,792	10.2	-4,167	55.9	27,417	5.5	0.74
1990	12,959	11.5	22,302	41.2	-9,343	124.2	35,261	28.6	0.58
1991	13,593	4.9	21,047	-5.6	-7,454	-20.2	34,640	-1.8	0.65
1992	14,715	8.3	22,871	8.7	-8,156	9.4	37,586	8.5	0.64
1993	15,345	4.3	29,428	28.7	-14,083	72.7	44,773	19.1	0.52
1994	<b>18,106</b>	<b>18.0</b>	<b>23,270</b>	<b>-20.9</b>	<b>-5,164</b>	<b>-63.3</b>	<b>41,376</b>	<b>-7.6</b>	<b>0.78</b>
1995	21,637	19.5	35,709	53.5	-14,072	172.5	57,346	38.6	0.61
1996	23,224	7.3	43,627	22.2	-20,403	45.0	66,851	16.6	0.53
1997	26,261	13.1	48,559	11.3	-22,298	9.3	74,820	11.9	0.54
1998	26,974	2.7	45,921	-5.4	-18,947	-15.0	72,895	-2.6	0.59
1999	26,587	-1.4	40,671	-11.4	-14,084	-25.7	67,258	-7.7	0.65
2000	27,775	4.5	54,503	34.0	-26,728	89.8	82,278	22.3	0.51
2001	<b>31,334</b>	<b>12.8</b>	<b>41,399</b>	<b>-24.0</b>	<b>-10,065</b>	<b>-62.3</b>	<b>72,733</b>	<b>-11.6</b>	<b>0.76</b>
2002	36,059	15.1	51,554	24.5	-15,495	53.9	87,613	20.5	0.70
2003	47,253	31.0	69,340	34.5	-22,087	42.5	116,593	33.1	0.68
2004	63,167	33.7	97,540	40.7	-34,373	55.6	160,707	37.8	0.65
2005	73,476	16.3	116,774	19.7	-43,298	26.0	190,250	18.4	0.63
2006	85,535	16.4	139,576	19.5	-54,041	24.8	225,111	18.3	0.61
2007	107,272	25.4	170,062	21.8	-62,790	16.2	277,334	23.2	0.63
2008	132,027	23.1	201,964	18.8	-69,937	11.4	333,991	20.4	0.65
2009	102,143	-22.6	140,928	-30.2	-38,785	-44.5	243,071	-27.2	0.72
2010	113,883	11.5	185,544	31.7	-71,661	84.8	299,427	23.2	0.61
2011	134,907	18.5	240,842	29.8	-105,935	47.8	375,749	25.5	0.56
2012	152,462	13.0	236,545	-1.8	-84,083	-20.6	389,007	3.5	0.64
2013	151,803	-0.4	251,661	6.4	-99,858	18.8	403,464	3.7	0.60
2014	157,610	3.8	242,177	-3.8	-84,567	-15.3	399,787	-0.9	0.65
2015	143,839	-8.7	207,234	-14.4	-63,395	-25.0	351,073	-12.2	0.69
2016	142,530	-0.9	198,618	-4.2	-56,088	-11.5	341,148	-2.8	0.72
2017	156,992	10.1	233,799	17.7	-76,806	36.9	390,792	14.6	0.67



2018	167,923	7	223,046	-4.6	-55,123	-28.2	390,970	0	0.75
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Source: (TÜİK, 2019a), (TÜİK, 2019b).

Figure 3: The Percentage Volume of Foreign Trade in Turkey (Years 1980-2018)



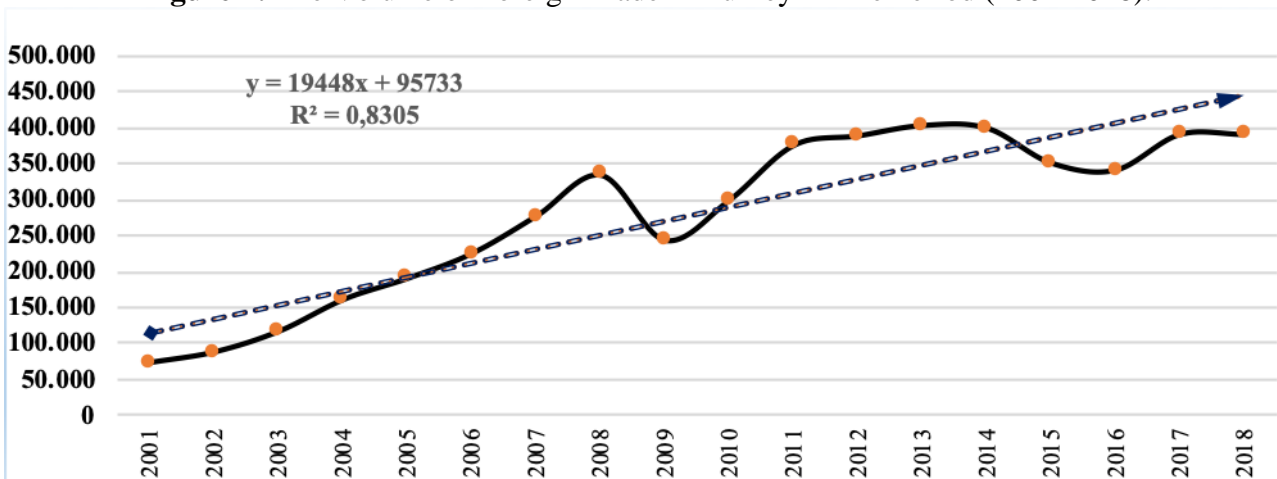
Source: (TÜİK, 2019a), (TÜİK, 2019b).

#### 4.2. The Empirical Measurement of Trade Liberalization Index (TLI) of Turkish Economy

According to the equation (1), the empirical measurement of TLI is mentioned at the Table 2 and Table 3. The statistical data are available in years 1998-2018. The researcher made the distinction in calculation as the following:

- Ratios as mentioned in section Measurement Method of the Trade Liberalization Index,
- The logarithm calculation, as mentioned in equation 1,
- The multiplying the coefficients with the logarithm, as mentioned also in question 1,
- The sum of TL logarithm,
- The TL index for each year,
- Percentage change of TLI, and lastly
- Percentage change of the volume of foreign trade (X+M).

Figure 4: The Volume of Foreign Trade in Turkey in The Period (2001-2018).



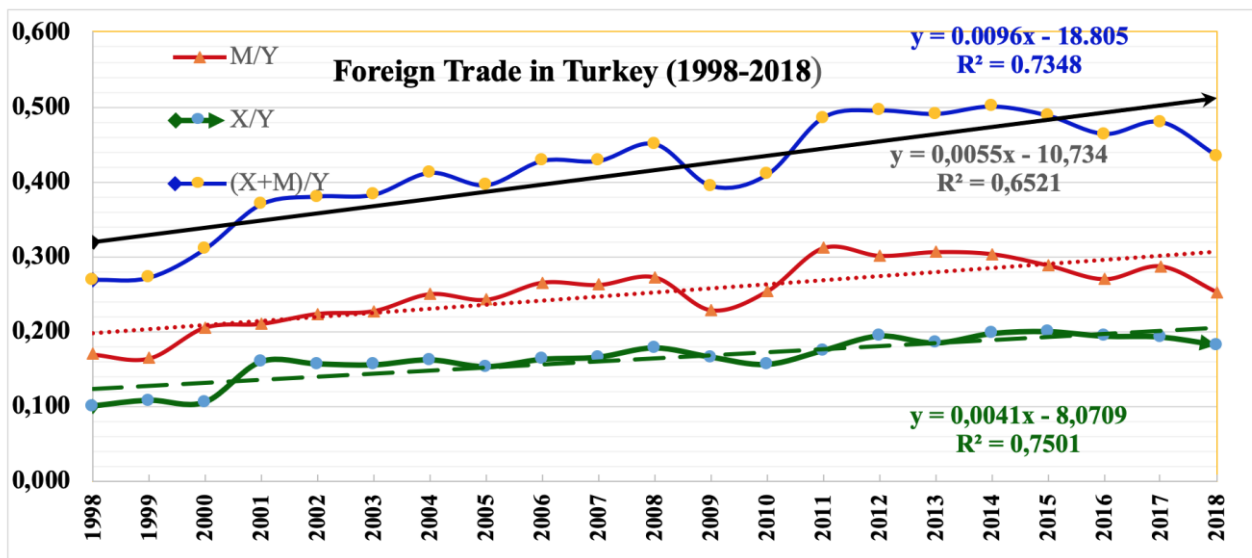
Source: (TÜİK, 2019a), (TÜİK, 2019b).

The empirical measurement shows, in table 3, that the trade liberalization index (TL) has positive contributions to economic growth in Turkey year by year since 2008 to 2018. This the best evidence in quantitative method to realize the positive relationship between the trade liberalization and economic performance. Definitely, it is positively relationship between the trade liberalization policy and the Turkish economy performance. In other word, there is no doubt that the trade liberalization policy is increased the growth rate and enhanced the Turkish economy.

In addition, table 3, also, shows also the percentage change of TL index. In 2009, there is a negative percentage change as the world financial crisis, which affected, negatively, the Turkish economy. In this case, the negative percentage change, by 27 percent in the same year, related to the volume of foreign trade, both the exports and imports. It shows the negative effects in 2009 to the Turkish Economy.

Lastly, figure 5 show the all ratios of exports, imports and OPEN, which draws from table 2 and table 3. All ratios are, gradually, increased year by year except during the crisis 2009.

Figure 5: Import to GDP Ratio (M/Y), Foreign Trade to GDP Ratio (X+M)/GDP Or (OPEN), and Export to GDP Ratio (X/GDP).



Source: (TÜİK, 2019a), (TÜİK, 2019b).

Table 2: Calculation of Trade Liberalization Index in Turkey in Years 1998-2007. (TLI) = 0.9852 L(M/Y) + 0.9991 L(X+Y)/Y + 0.98 L(X/Y) (Equation 1)

Year	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
GDP Million \$	270,947	247,544	265,384	196,736	230,494	304,901	390,387	481,497	526,429	648,754
Exports (X) Million \$	26,974	26,587	27,775	31,334	36,059	47,253	63,167	73,476	85,535	107,272
Import (M) Million \$	45,921	40,671	54,503	41,399	51,554	69,340	97,540	116,774	139,576	170,062
M/Y	169	164	205	210	224	227	250	243	265	262
(X+M) Million \$	72,895	67,258	82,278	72,733	87,613	116,593	160,707	190,250	225,111	277,334
(X+M)/Y	269	272	310	370	380	382	412	395	428	427
X/Y	100	107	105	159	156	155	162	153	162	165
L (M/Y)	-771	-784	-687	-677	-650	-643	-602	-615	-577	-581
L(OPEN)	-570	-566	-509	-432	-420	-417	-385	-403	-369	-369
L (X/Y)	-1.002	-969	-980	-798	-806	-810	-791	-816	-789	-782

985	-759	-773	-677	-667	-641	-634	-593	-606	-568	-573
0.9991	-570	-565	-508	-432	-420	-417	-385	-403	-369	-369
0.98	-982	-950	-961	-782	-790	-794	-775	-800	-773	-766
Sum L (TL)	-2.311	-2.288	-2.146	-1.881	-1.850	-1.844	-1.754	-1.809	-1.710	-1.708
Exp. (TLI)	99	101	117	153	157	158	173	164	181	181
% Change TLI	0.00	2.36	15.23	30.41	3.10	0.57	9.48	-5.40	10.42	0.25
% Change (X+M)	-2.6	-7.7	22.3	-11.6	20.5	33.1	37.8	18.4	18.3	23.2

Source: (TÜİK, 2019a), (TÜİK, 2019b).

**Table 3:** Calculation of Trade Liberalization Index in Turkey in Years 2008-2018. (TLI) =  $0.9852 L(M/Y) + 0.9991 L(X+Y)/Y + 0.98 L(X/Y)$  (Equation 1)

Year	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
GDP Million \$	742,094	616,703	731,608	773,980	786,283	823,044	799,370	719,620	736,000	815,000	923,000
Exports (X) Million \$	132,027	102,143	113,883	134,907	152,462	151,803	157,610	143,839	142,530	156,992	167,823
Import (M) Million \$	201,964	140,928	185,544	240,842	236,545	251,661	242,177	207,234	198,618	233,799	233,046
M/Y	272	229	254	311	301	306	303	288	270	287	252
(X+M) Million \$	333,991	243,071	299,427	375,749	389,007	403,464	399,787	351,073	341,148	390,791	400,869
(X+M)/Y	450	394	409	485	495	490	500	488	464	479	434
X/Y	178	166	156	174	194	184	197	200	194	193	182
L( M/Y)	-565	-641	-596	-507	-522	-515	-519	-541	-569	-542	-598
L(OPEN)	-347	-404	-388	-314	-306	-310	-301	-312	-334	-319	-362
L (X/Y)	-750	-781	-808	-759	-712	-734	-705	-699	-713	-715	-740
985	-557	-632	-587	-499	-514	-507	-511	-533	-560	-534	-589
0.9991	-346	-404	-388	-314	-305	-309	-301	-311	-334	-319	-362
0.98	-735	-765	-792	-744	-698	-719	-691	-685	-699	-701	-726
Sum L (TL)	-1.638	-1.801	-1.766	-1.557	-1.517	-1.536	-1.503	-1.529	-1.593	-1.554	-1.676
Exp. (TLI)	194	165	171	211	219	215	223	217	203	211	187
% Change TLI	7.20	-15.02	3.51	23.34	3.99	-1.82	3.37	-2.63	-6.15	3.94	-11.50
% Change (X+M)	20.4	-27.2	23.2	25.5	3.5	3.7	-0.9	-12.2	-2.8	14.6	0

Source: (TÜİK, 2019a), (TÜİK, 2019b).

## 5. CONCLUSION

In this study, it used both theoretical and statistical analysis i.e. qualitative and quantitative methods analysis. For the qualitative method, the Turkish Government have already started for the trade liberalization strategy by implementation policies since 1980, for long-run. Later, there are many reforms of the Turkish economy by plans and packages after each crisis in years 1994, 1999, 2001, and 2009, but the last plan came into effect in 2004. This strategy, as applied continuity and sustainability, is positively affected the Turkish Economy by enhancing all the sectors during the long time, year by year, especially the industrial sector. As the result, the strategy makes a shift of the volume of foreign trade, as expected. The Foreign trade has increased the value of exports including increasing also the imports gradually and then rapidly after 2002 until 2009 when the world financial crisis occurred. Then, the Turkish economy was reform again. The mentioned strategy is also harmonized all sectors and enhancing the competition by increasing the quality of

the products. There is a shift and increasing the volume of foreign trade rapidly since 2002, and increasing the exports as well. As the quantitative method, according to Kar's equation (equ.1), measured the trade liberalization index (TLI) from 1998 to 2018, as the statistical data available. It is positive relationship between the trade liberalization policy and the Turkish economy performance. In other word, there is no doubt that the trade liberalization policy has already increased the growth rates and enhanced the Turkish economy. Lastly, by using both methods, quantitative and qualitative, confirm the positive results.

## REFERENCES

- Atabay, R. (2016). The Relationship between Trade Openness and Inflation in Turkey. *International Journal of Research in Business and Social Science (2147-4478)*, 5, 137. <https://doi.org/10.20525/ijrbs.v5i3.464>
- Ben, H., Mustapha, H., and Jallab, S. (2007). Trade liberalization and development: Lessons for Africa. *Journal of World Investment and Trade*, 8. <https://doi.org/10.1163/221190007X00119>
- Dinç, A., and Üçüncü, Y. (2016). Analysis Of The World Trade Liberalization And Turkey. *Kültür ve Medeniyet Sosyal Bilimler Enstitüsü Dergisi*, 5–30.
- Engel, S. N. (2010). Development economics : from classical to critical analysis. *The International Studies Encyclopedia, II*, 874–892.
- Kar, M., Peker, O., and Kaplan, M. (2014). Trade Liberalization, Financial Development and Economic Growth in The Long Term: The Case of Turkey. *East European Journal of Economics and Business*, 25–38. <https://doi.org/10.2478/v10033-008-0012-x>
- Parikh, A. (2004). Relationship Between Trade Liberalisation, Growth and Balance of Payments in Developing Countries: An Econometric Study. *Hamburg Institute of International Economics, Discussion Paper Series*, 20. <https://doi.org/10.2139/ssrn.575963>
- Şahin, D. (2016). Relationship Between Trade Openness And Economic Growth In Turkey: ARDL Bounds Test Approach. *International Peer-Reviewed Journal of Humanities and Academic Science*, (15), 20–36.
- Shafaeddin, S. M. (2005). Trade Liberalization And Economic Reform In Developing Countries: Structural Change Or De-Industrialization? İçinde *United Nations Conference on Trade and Development* (ss. 1–27).
- Subaşat, T. (2008). Do liberal trade policies promote trade openness? *International Review of Applied Economics*, 22(1), 45–61. <https://doi.org/10.1080/02692170701745887>
- Türkiye İstatistik Kurumu (TÜİK) (2019a). Dış Ticaret Verileri.
- Türkiye İstatistik Kurumu (TÜİK) (2019b). Ulusal Hesaplar.