



The Relationship Between Profit and Export Performance Revisited: Evidence from Turkish Companies

Azize Esmeray¹, Murat Esmeray^{2*}

¹School of Applied Sciences, Erciyes University, Turkey, ²Department of Business Administration, Faculty of Economics and Administrative Sciences, Erciyes University, Turkey. *Email: mesmeray@erciyes.edu.tr

ABSTRACT

In this study, the linkage between export and profit performance is analyzed. In order to see the relation, we employ least square analysis for the period of 1993-2014 by taking 500 largest companies in Turkey. It is concluded that both export and profit performance have positive effect on each other's. On the other hand, export positive effect is more powerful than profit effect on export.

Keywords: Profit, Export, 500 Largest Companies

JEL Classifications: F4, F14

1. INTRODUCTION

Since the mid-1990s, an enormous and emerging literature on international trade have offered a wealth of information about the significant role that firms play in facilitating countries' imports and exports. Exporting firms are more productive than otherwise identical companies that sell on the domestic market only. Exporting firms confront additional costs due to, among others, market research, adoption of products to native regulations, or transport costs. These additional costs are one reason for a self-selection of the more productive firms on international markets. Moreover, exporting companies have a tendency to pay higher wages than non-exporting firms in market (Fryges and Wagner, 2010). The fact that exporters have a productivity benefit before they start exporting proposes self-selection: Exporters are more productive, not as a result of exporting, but because only the most productive firms are able to overwhelmed the costs of entering export markets. This sort of microeconomic heterogeneity can affect macroeconomic consequences. When trade policy blocks fall or transportation costs decline, high-productivity exporting firms continue and grow, while lower-productivity non-exporting firms are more likely to fail (Bernard et al., 2007). Traditional international trade theories expect that countries will export industries that have comparative advantage and import industries that have comparative disadvantage which clarify the inter-industry

trade. Turkish economy's export orientation has been started in the early 1980's by "24 January Decisions." It is an economic stabilization program implemented in 1980 was the starting point of trade liberalization and market-oriented economic reforms in Turkey. In this program, exports subsidies and export-led growth policies were implemented in place of import substitution policies. Since then integration to global markets and export orientation has been policy anchors for all Turkish governments. In just a few years, positive effects of these policies were observed on Turkish exports (Demirhan, 2013). The exports reached to USD 144 billion in 2015 from USD 2.91 billion in 1980 and hope that to reach 500 billion dollars of exports volume in 2023 (Figure 1).

We can see both export and profit performance for 500 largest companies over the period 1993-2014 (Graphs 1 and 2).

Although there is a downward trend as a result of 2008 crisis, upward trend can be seen from both export and profit performance both Graphs 1 and 2.

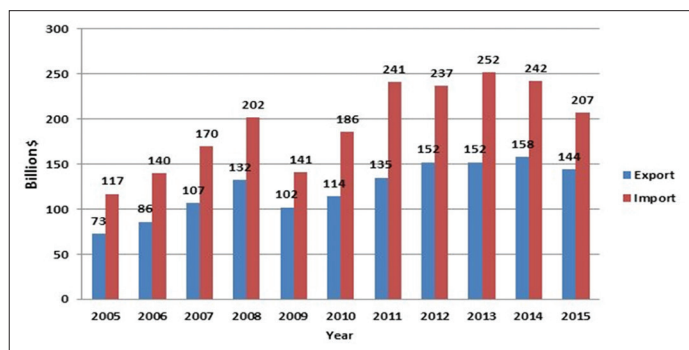
In this study apart from the existing literature, we focus on the relation between export and profitability relation in Turkey. In order to test, we employ firm level data which is taken from 500 largest industrial organizations of Turkey (ICI-Istanbul Chamber of Industry) for the period of 1993-2014.

For this aim, Section 2 presents literature. We introduce empirical model, data and the results at Section 3. Section 4 concludes.

2. LITERATURE REVIEW

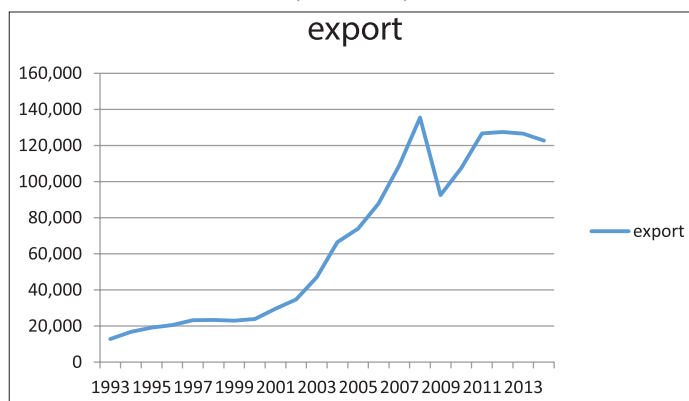
Although there are a lot of studies searching the connection between profitability and export, there is no consensus on this subject. While some studies found positive relationship between profitability and export. The others found negative relationship. In their study Esen et al. (2016) use panel data analysis of the manufacturing businesses in Istanbul stock exchange in the years

Figure 1: Export-import performance (2005-2015)

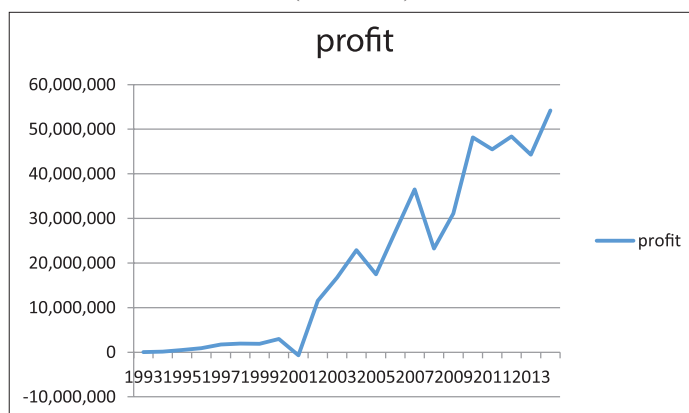


Source: Turkish statistical institute

Graph 1: Export performance of 500 largest companies in Turkey (1993-2014)



Graph 2: Profit performance of 500 largest companies in Turkey (1993-2014)



2009-2014 in order to search the effects of international trading activities of the businesses on profitability and capital structure of the businesses. They find that the long - term debt ratio is affected negatively by import level. Also profitability is affected negatively by export level. To analyze the profit of the businesses which export at different levels and which have different structure of ownership with the help of analysis of variance and Chi-square test, Tunahan et al. (2015) employ the data of top 1000 exporters survey of Turkish exporters assembly (TIM) in the year 2012. They find that the profitability of the local companies and companies which have high export level is low but the profitability of the companies which have low export level and the profitability of foreign and mixed companies is high.

In Srithanpong’s study (2014) a positive relationship between the profitability of a business and being various types of traders is found. Especially being an exporter has a strong relationship with an increase in the profit of sales and the rate of profit of a business. Tamminen and van den Berg (2013) study on the relationship between trade status profitability and size of the firm. And they come to a conclusion that internationalization has a positive effect on the probability of firm survival.

Grazzi (2012) investigates the relationship between profitability and export on Italian exporting businesses. He finds that there is not a systematically association between the firm’s profitability and exporting activity. Also non exporters are not less profitable than exporters. In their study Carneiro et al. (2011) search external environment, firm characteristics and strategy on manufactured products of 389 Brazilian exporters. They find out that there is a strong positive connection between export revenues and status of the exporting activity and there is a strong negative connection between export revenues and barriers in the host country. They also find a positive connection between export profitability and systematization of export planning and also there is a negative connection between export profitability and barriers in the host country.

In their study Fryges and Wagner (2010) study the exports and profitability in manufacturing businesses. They find that non-exporters are not as profitable as exporters but there is small difference between them. In their study Kongmanila and Takahashi (2009) study on the relationship between innovation and export performance and profitability of the businesses in Lao Garment

Table 1: Descriptive statistics

Statistic value	Export	Profit
Mean	5.894689	6.901646
Median	5.890263	7.250943
Maximum	5.932185	7.739685
Minimum	5.864987	4.617516
Standard deviation	0.024977	0.819141
Skewness	0.242957	-1.039506
Kurtosis	1.392751	3.601819
Jarque-Bera	2.584416	4.294104
Probability	0.274664	0.116828
Sum	129.6832	151.8362
Sum square deviation	0.013101	14.09082
Observations	22	22

Table 2: Empirical results

Model 1			Model 2		
Coefficient	0.024778	R ² : 0.66	Coefficient	2.65024	R ² : 0.66
Standard error	0.003974	P (F-statistic): 0.000	Standard error	4.273929	P (F-statistic): 0.000
t-statistic	6.235537	Durbin-Watson stat: 1.67	t-statistic	6.235537	Durbin-Watson stat: 2.20
t-statistics P	0.0000		t-statistics P	0.0000	

factories. They find that innovation has an important role in export performance. Innovation affects the firm's profitability positively from the point of return on assets. Also they see a positive effect between profitability and export performance.

In their study Lu and Beamish (2006) show that exporting activity affects the growth positively but the profitability negatively. The relationship between the growth and profitability of the firm and foreign direct investments (FDI) is affected negatively by the SME's age when it begins to make FDIs.

In their study Ural and Acaravcı (2006) want to see how a firm's strategic factors affect the export and economic performance in Turkish manufacturing businesses. They find out that there is a negative relationship between accounting performance and capital intensity.

3. MODEL AND RESULTS

We employ two different models to see how export affects profit performance and vice versa by using time series regression analysis.

$$\text{Export} = \beta_0 + \beta_1 \text{Profit} + u_t \quad \text{Model 1}$$

$$\text{Profit} = \beta_0 + \beta_1 \text{Export} + u_t \quad \text{Model 2}$$

According to Jarque-Bera in Table 1, the data sample illustrate normal distribution.

We present least square results at Table 1.

We can conclude that both export and profit affect positively each other's. On the other hand, coefficient value for Model 2 is bigger than Model 1 (Table 2). This result means that export effect on profitability is bigger. In Turkey, it is seen that not only profit effect on export is positive but also export effect on profit is also positive.

4. CONCLUSION

Trade liberalization can increase productivity by inducing a better allocation of production factors or the adoption of more advanced technologies. Understanding of the often-observed statistical correlation between a firm's export activities and profit seems to have appeared. Earlier work tends to emphasize the conclusion that

export participation leads to increased efficiency then encourage profits. For the case of Turkey, decisions made on January 24, 1980, that marked Turkey's shift from "mixed capitalism" to a free market economy is examined for the linkage between export and profits. According to our empirical results, we see that both export and profit affect positively each other's performance. On the other hand, we conclude that exports positive effect on profit is bigger than profit positive effect on export.

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