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AN INVESTIGATION INTO THE ROLE OF TRADE FACILITATION IN THE DEVELOPMENT OF NON-OIL EXPORTS A CASE STUDY OF SELECTED COUNTRIES IN SOUTH-WEST ASIA

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ABSTRACT

One of the ways of economic development in petroleum exporting countries with mono-cultural economy dependent on oil is the enhancement of export power as well as export diversification. This would not be realized unless all aspects of factors affecting non-oil exports are addressed. One of the factors which influence export development is trade facilitation. Trade facilitation means to simplify processes and procedures of international trade and to assimilate information exchanged between merchants and governmental organizations. In this study, the effect of trade facilitation on non-oil export of countries in South West Asia is addressed. In order to estimate the model and empirically test the role of trade facilitation in non-oil export, panel data within 2006-2012 has been used. Results from the estimation of the model confirm the positive and significant impact of trade facilitation on the development of non-oil exports. Furthermore, GDP has also a positive and significant effect on non-oil exports. Therefore, overcoming barriers of increasing production and trade facilitation plays a large role in the development of non-oil exports.

Keywords: *Trade Facilitation, Export, Panel Data*

INTRODUCTION

One of the most important and fundamental components of growth and development in the international arena is the particular attention to export and foreign trade. Trade and exchange of goods has a special and excellent position either in inside the country or in the international environment in a way that it is increasingly growing in the world. Foreign trade is one of the important areas for countries. Obviously, economic conditions and realities such as the creation of economic value; scale of economic activities; subject and relation of exchange as well as processes of exchange undergo dramatic evolutions at different periods. These are more intense in the field of foreign trade in a competitive environment. In the field of international trade, due to the presence of various countries and suppliers with different objectives, attempt to gain export markets is remarkable. In today's world, an important part of international trade is formed by export in countries. In fact, one way to increase foreign currency and as a result, economic development is the export of goods and services. Obviously, in today's world and in conditions that every country tries to gain a larger share of world market, the development of export is not an easy task. Countries have more realized that having a share of market in a country is not just limited to the material and economic benefits for the country but is cultural and political presence in other countries all over the world. Sensitivity and importance of the export of goods and services for countries has caused those countries to identify tools and factors affecting the export and attempt to develop it.

Since the export development of each country is the source of employment, increasing productivity, obtaining more foreign exchange earnings and positive trade interaction with other countries all over the world, various countries adopt different support methods to enjoy their benefits. Some countries strengthen the production and exploit the relative advantages of production factors, some attract foreign investment and promote technology and some still facilitate business rules that the aim of all of these measures is to achieve the development of export and economic growth.

As an internationally accepted concept in 1996, trade facilitation was first formally placed in the agenda of World Trade Organization (WTO) ministerial meeting in Singapore and then, entered in documents of the organization as a target under the same title. However, before that, many Acts and agreements of the

Research Article

organization had actually been directed in trade facilitation. In definitions provided by countries membered in Organization of Economic Cooperation Development (OECD) and World Trade Organization (WTO), trade facilitation have been defined as the facilitation and harmonization of international trade procedures including activities, procedures and collecting, presenting, publishing and processing data and other trade needs in the international arena (Martinez, 2008).

Studies show that the root of most barriers in exports is lack of information and effective communication. So, the preparation of guidelines for the provision of commercial information required by exporters and foreign trade facilitation, especially in the field of export, is one of the strategic requirements outlined in the field of export development (Behar, 2008).

Not only does trade facilitation in export sector leads to enhance export in the country, but also it increases domestic production and protects work force and domestic capital. In addition to the use of empty capacities of production process of the country, this also exploits new work force and capital (Dennis, 2011).

The benefits obtained from trade facilitation can be stated as follows:

- Reducing costs of trade, especially reducing the time
- Increasing trade (export and import)
- Increasing the governmental revenue
- Increasing the economic welfare and growth (Milner, 2008)

The documents and time required for export and import and logistics performance index are sub-indices of trade facilitation from the perspective of World Bank. Logistics Performance Index is a comprehensive and multi-dimensional index ranked between 1 (the worst) and 5 (the best) and designed to help countries identify bottlenecks and opportunities faced with in the process of their logistics trade.

In the present study, due to lack of statistical data for logistics index of the selected developing countries, more details on the issue have been avoided.

In his study entitled “Trade policy, trade costs and trade of developing countries”, using data from 104 importing and 115 exporting countries in 2006, Bernard Hoekman (2008) showed that the development of the process of trade facilitation has significant effects on the expansion of trade in developing countries (Hoekman, 2008).

In the study entitled “Trade facilitation and export”, by investigating 7000 industrial export enterprises in 37 countries of sub-Saharan Africa, Ruth Hoekstra (2012) evaluated their behavior in trade facilitation measurements. The obtained results suggested that trade facilitation increases the participation of African enterprises in international trade (Hoekstra, 2012).

In their study entitled “Trade facilitation and industrial exports: Is Africa different?” for 124 countries in 2003 and 2004, Tomasz Iwanow and Colin Kirkpatrick (2007) stated that trade facilitation measurements can actually help to improve the export performance. In this study, for trade facilitate, variables such as the number of processes, documents and days required to perform administrative duties of imports and exports have been applied (Iwanow, 2007). By focusing on the geographical distance between countries, Shepherd (2010) stated that the facilitation of the trade process has a significant effect on the volume of trade between them. In this study, conducted on 117 selected countries, it was observed that the reduction of one unit standard deviation in variables such as tariffs, export costs and transportation costs which are a function of geographical distance of the countries from each other, can improve export between 3% to 12% in some situations (Shepherd, 2011).

In their study entitled “Trade facilitation and developed economics” conducted for 75 selected countries, John S. Wilson et al (2003) demonstrated that the development and promotion of facilities in the field of trade can promote the trade performance of studied countries about 10% (Wilson, 2003).

Studies (Jansen, 2003), (Martinez, 2008), (Felipe, 2010) and (Portugal, 2010) also indicate the positive impact of trade facilitation on export. In general, it can be said that the results of studies in which non-price factors have been deemed as factors affecting non-oil export, emphasized the impact of such factors. Among from such factors are labor productivity, electronic commerce, competitiveness, GDP and economic openness in the reviewed studies.

Research Article

MATERIALS AND METHODS

In the current study, given the limitations of statistical data related to logistic index, and in order to test the study hypothesis, the form of the function is shown as follows:

$$X_{it} = \beta_0 + \beta_1 \text{LNDUC}_{it} + \beta_2 \text{LNTIM}_{it} + \beta_3 \text{LNGDP}_{it} + U_{it}$$

The variables used in the model are:

LNTIM: log of the number of documents required for export

LNDUC: log of the number of days required to export

LNGDP: log of GDP (US \$ million at current prices)

According to the theoretical foundations, it is expected that trade facilitation has a positive effect on non-oil export by reducing the number of documents and days required for export. Variable of GDP has a positive effect on increasing the export through increasing production capacity and production scale.

The selected countries included: Iran, Pakistan, Azerbaijan, Armenia, Israel, Tajikistan, Turkmenistan, Georgia, Turkey, Lebanon, Saudi Arabia, Kuwait, Yemen, Jordan, Oman and Bahrain and the studied period was from 2006 to 2012. The statistical data has been extracted from World Bank.

Panel data method was used to estimate the model. Also, GLS method was applied to better explain and make sure of the lack of the effect of heteroscedasticity of the results. Before estimating the model, F and Housman tests were performed to select the appropriate method and their results showed that the method of fixed effects is suitable for the estimation.

RESULTS AND DISCUSSION

Results

Results of estimating the model using fixed effects are given in Table 1. As it can be seen in the Table, R² of the model indicates high power of model fitting that is variables incorporated in the model explain 99% of export changes over time or the export differences between countries. Durbin-Watson statistics testing the serial correlation in the model indicates the absence of the problem of serial correlation in the model because its value is approximately equal to 2.

Table 1

S.NO	Variable	coefficient	Std.Error	t-Statistic	Prob
1	Log(Duc)	-0.71	0.22	-3.15	0.0022
2	Log(Time)	-0.77	0.32	-2.48	0.017
3	Log(GDP)	0.52	0.08	6.09	0.000
4	R ²		0.99		
5	D.W		1.98		

Given the significance of the coefficients of the variables in the model, they are interpreted. By increasing 1% in the number of days required for export, non-oil export is reduced at the rate of 0.77%. Also, by assuming the constant of other factors, via increasing 1% in the number of documents required for export, non-oil export is reduced at the rate of 0.71%. In countries where there is efficient customs procedures and business transport, less documents and signatures are required and less time is allocated to do administrative stages and customs formalities related to the export procedures hence, the exporters can easily do their works. Studies show that each day of additional delay in transportation has the cost equivalent to 0.5% of good value for goods exported by ship or rail (World Bank, 2008). Therefore, the results of estimating the model confirms the study hypothesis on the positive role of trade facilitation in the development of non-oil export. By assuming other factors constant, 1% increase in GDP increases non-oil export about 0.52%. Increasing GDP in a constant price indicates the enhancement of the production capacity of the country for export. Also, an increase in production represents the elongation of the scale of production and economies of scale which assist to decrease the cost price of product, enhance the relative advantage, and increase the export. Finally, an increase in GDP by an increase in the import of consumer, intermediate and capital goods help the export development.

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Conclusion

In this study, to estimate the models and test the study hypothesis, panel data of 16 selected countries of Southwest Asia as well as the fixed effects model were used. The studied period is the years of 2006-2012. Given the results obtained from the estimation of the model, the significant and positive impact of trade facilitation on non-oil export can be found and it can be accentuated that reducing the number of days and documents required for export plays a key role in the growth of non-oil export. In addition, removing barriers of the enhancement of production and investment can highly contribute to the development of non-oil export.

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