Araştırma Makalesi / Research Article

THE IMPACT OF FOREIGN DIRECT INVESTMENT ON EXPORT OF HIGH-TECHNOLOGY PRODUCTS: THE ROLE OF FINANCIAL DEVELOPMENT AND REGULATORY QUALITY*

Doğrudan Yabancı Yatırımların Yüksek Teknolojili Ürün İhracatına Etkisi: Finansal Gelişme ve Düzenleyici Kalitenin Rolü

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ABSTRACT: This study aims to reveal whether financial development and regulatory efficiency have a noteworthy role in developing countries 'relationship between foreign direct investment and export of high-tech products. Rich panel data from 70 developing countries for the period 2002-2015 are used in the analysis to examine the relevant relationship. The Generalized Moments Method (GMM) is utilized in the study, since it allows to control the endogeneity relationship between variables. Findings shows that financial development and regulatory quality level affect the contribution of FDI on exports of high-tech products in developing countries. According to results, in countries where regulatory quality and financial development level are higher, FDI may contributes positively to export of high technology products. However, it couldn't be found any significant relationship for countries which have less regulatory quality and financial development level.

Keywords: Foreign Direct Investment, Export of High Technology Products, Financial Development, Regulatory Quality, Developing Countries.

ÖZ: Bu çalışma finansal gelişimin ve düzenleyici kalitenin, gelişmekte olan ülkelerin doğrudan yabancı yatırım ve yüksek teknoloji ürünlerin ihracatı arasındaki ilişkisinde dikkate değer bir rolü olup olmadığını ortaya koymayı amaçlamaktadır. İlgili ilişkiyi incelemek için, analizde 2002-2015 dönemi için gelişmekte olan 70 ülkenin zengin panel verileri kullanılmaktadır. Çalışmada değişkenler arasındaki endojenlik ilişkisinin kontrol edilmesini sağlayan Genelleştirilmiş Momentler Metodu (GMM) kullanılmaktadır.

* In this study, an ethics committee report is not required for the secondary data provided in the data and methodology section.

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Bulgular, finansal gelişimin ve düzenleyici kalite seviyesinin, gelişmekte olan ülkelerde doğrudan yabancı yatırımların yüksek teknolojili ürün ihracatına katkısını etkilediğini göstermektedir. Sonuçlara göre, düzenleyici kalite ve finansal gelişme düzeyinin daha yüksek olduğu ülkelerde DYY, yüksek teknoloji ürünlerinin ihracatına olumlu katkıda bulunabilir. Ancak, Düzenleyici Kalitesi ve finansal gelişme düzeyi daha az olan ülkeler için anlamlı bir ilişki bulunamamıştır.

Anahtar Kelimeler: Doğrudan Yabancı Yatırım, Yüksek Teknolojili Ürün İhracatı, Finansal Gelişmişlik, Düzenleyici Kalite, Gelişmekte Olan Ülkeler.

INTRODUCTION

The cross-border stream of foreign direct investment (FDI) has been one of the most highlights of the globalization in recent years. Especially in developing countries struggling for finding capital, FDI contributes to the economy by providing foreign exchange and creating employment opportunities and rising tax revenue in the host country. At the same time, advanced technology and knowledge transfer pouring to the country through FDI, increase the level of knowledge accumulation of countries. By this way, developing countries which can reach new technological knowledge, can produce technology intensive and high value-added products, also can gain competitiveness advantages in international arena. That is, the effect of FDI on countries is multidimensional in terms of growth, productivity, employment and competitiveness.

The current literature shows that the impact of FDI on the economic performance of countries is often examined in terms of growth (Borensztein et al., 1998; Ridzuan et al., 2017), productivity (Markusen and Venables, 1999; Smarzynska Javorcik, 2004; Liang, 2017) and employment (Blalock and Gertler, 2008; Karlsson et al., 2009). However, in recent years, with the rapid progress of technology, the disappearance of international borders and the increase of competition, technology has become one of the most important international power and performance indicators of the countries. Countries which have more advanced technology and the ability to use this advanced technology are the leading countries in many areas. For this reason, revealing whether FDI increases the technological performance of the countries is important for the economic policies. In this context, the main issue in this study is to find out the relationship of FDI and exports of high technology (high-tech) products which reflects the technological development levels of the countries.

The main objective of this study is to determine the effect of FDI on exports of high technology products and whether this effect differs by country-specific factors. In other words, the study basically seeks answers to two questions: The first is whether FDI (net) inflows contributes to the technological advancement of developing countries. The second question is whether financial development

and regulatory quality as country specific factor of countries play a significant role in the relationship.

For this purpose, a panel data is conducted for the period 2002-2015 from 70 developing countries. The Generalized Moments Method (GMM) which is one of the panel data quantitative analysis methods is performed in the study. This method is more sensitive than traditional methods and allows to control the endogeneity relationship between variables.

Conceptual, methodological and practical contribution of the study to the literature are as follows: Conceptual contribution; unlike existing literature, this study investigates the effect of financial development and regulatory quality as country specific factors on the link between FDI and export of high technology products. Methodological contribution; this study is expected to contribute methodologically as it will carry out analyzes with GMM method on panel dataset consisting of data from 70 developing countries covering the period of 2002-2015. Contribution in practice; FDI is among the issues that countries attach importance to in terms of economic policies in terms of the added value they provide to countries and the competitive advantage it provides. In this sense, the relations resulting from the study are expected to be guiding in the policies of the country. Also, the more extensive knowledge about the position of country-specific factors in the benefit of FDI may lead to enable strategic investment in the required areas.

The rest of the study consists of the following sections: Second section includes theoretical framework. In the third part, empirical literature review is given. The fourth part introduces hypothesis, data set and method used in the study. Following section presents empirical analysis results. The study is completed with the conclusion and recommendations.

THEORATICAL BACKGROUND

This part gives the theoretical background of the basic question of whether the financial development and regulatory quality level as country specific factor play an important role in the link between FDI and of high-tech exports.

Although the Theory of Comparative Advantages, developed by David Ricardo in 1817, is basically a simple model based on the assumption that there are two countries, two commodities and one factor of production is labor, this comparative advantage in the model is a concept that remains important in today's international trade. In David Ricardo's theory, the relative differences in labor-related productivity considered as the sole factor of production which is the source of comparative advantage has changed over time. For example, Hecksher-Ohlin-Samuelson (HOS) modeled why some countries are more

advantageous based on the comparative advantage model. According to HOS theory, the comparative advantage depends on the relative difference in factor equipment such as land, capital and labor, and on the production processes of goods that use these factors at different rates.

Comparative advantage theory continues to research with its changing sources depending on time and developments. Helpman (2010) focuses on the impact of political and legal frameworks in his study named "New Sources of Comparative Advantage". Beck (2003) and Manova (2008) report that financial markets; Levchenko (2007) shows that institutional quality provide relative advantage in international trade. In addition to these studies, Kowalski (2011) shows that the determinants of comparative advantage are physical capital accumulation, human capital accumulation, financial development, energy supply, business environment and institutions of labor market.

Porter (1993), in his book "The Competitive Advantage of Nations" examines how some of the traits of nations have given them a competitive advantage by Diamond Model. According to this model, "Factor conditions", "demand conditions", "the status of relevant and supporting industries", "firm structure, strategy, and competitive status" are factors that directly and fundamentally affect competitiveness, whereas "the role of the state" and "chance" are two other indirect factors. Factor conditions in the model express the factors that will provide advantages in production such as physical infrastructure, information resources, skilled labor, natural riches and capital owned by countries. According to the model, countries which are superior in these production factors will be successful in global markets by holding competitive advantage in related sectors.

One of the leading studies in the field of FDI, Caves (1974) modeled the benefits of FDI to countries in three parts: "Distribution efficiency", "Technical efficiency" and "Technology transfer". He states that FDI is a package that provides technology transfer from developed countries to developing countries, also it includes expertise, talents, and financial resources. Following Caves' study, Findlay (1978) describes FDI as a channel that spreads advanced technological knowledge and managerial skills, enhancing technical progress in the country of investment, calling it a "contagious effect". Newman et al. (2015) attribute the interactions with foreign investment firms, which are technologically superior to domestic firms, resulting in increased productivity as an indicator of FDI-driven technology diffusion. Similarly, Zhang (2001) and Lipsey (2004) state that the main benefit of FDI is technology transfer and information dissemination. Local firms benefit from the dissemination of technology and knowledge by observing, imitating, partnering with, and participating in supply chain processes and / or employing their educational, managerial and technically qualified employees (Blomström and Kokko, 1998; Liu and Zou, 2008).

The benefit from the spread of information and technology from FDIs depends on the capacity of countries to absorb and use these new knowledge and skills. Countries that do not have the capacity to use the new technology cannot benefit technically. OECD (2001) states this as "threshold externalities" in the underdeveloped country report. According to the report, countries that do not have a certain amount of technical infrastructure and whose financial markets are not developed cannot benefit from FDI sufficiently.

The related literature includes concrete examples of the impact of FDIs on growth and productivity in the host country, depending on country-specific factors. For example, while Borensztein et al. (1998) found that the positive effect of FDI on economic growth in developing countries depends on the amount of educated human capital, Alfaro et al. (2010) suggest that this effect is positive in countries with advanced financial conditions. In addition, there are studies showing that institutional quality and trade regime are effective in the relationship between FDI and growth (Zhang, 2001; Durham, 2004). Similarly, there are studies showing that the effect of FDI on productivity depends on the criteria of firms or countries' ability to absorb technology such as educated labor force and R&D capacity (Cohen and Levinthal, 1990; Liang, 2017).

EMPRICAL LITERATURE REVIEW

When literature reviewing the impact of FDI on countries' economic performance is examined, it is often seen that growth (see Borensztein et al., 1998; Ridzuan et al., 2017), productivity (Markusen and Venables, 1999; Smarzynska Javorcik, 2004; Liang, 2017) and employment (Blalock and Gertler, 2008; Karlsson et al., 2009). Compared to these studies, the number of studies that examine the effect of FDI on export of high-tech products is still quite low.

Based on a limited number of literature on FDI and export of high-tech products, it can be stated that the relationship is handled differently for various country groups and the results change. While most researchers show that FDI positively affects export of high technology products for different country groupings (Seyoum, 2005; Montobbio and Rampa, 2005; Tebaldi, 2011; Alemu, 2013; Abedini, 2013; Wana Ismail, 2013; Zhang, 2015; Topallı 2015); a few researchers notes that FDI are not related to export of high technology products (Braunerhjelm and Thulin, 2008; Ying et al., 2014). The sample, methodology and results of these studies are summarized in Table 1.

When the studies are examined, it is noteworthy that the role of country-specific factors in the relationship between FDI and high-tech exports is not questioned and in this respect there is a gap in the field. Therefore, this study investigating the role of country-specific factors in FDI's impact on high-tech exports is expected to fill the gap in the field.

Table 1: Summary of Selected Empirical Studies

Author	Sample	Methodology	Result
Seyoum (2005)	55 Developed and Developing Countries in 2000	Factor Analysis and Multivariate Regression Analysis	Positive relationship between FDI and export of high-tech products.
Montobbio and Rampa (2005)	9 Developing Countries; for the period of 1985–1998	Structural decomposition methodology	FDI affects exports performance in high-tech sectors.
Braunerhjelm and Thulin (2008)	19 OECD countries, for the period of 1981-1999	Panel data, fixed effect	FDI are not related to export of high-tech products
Tebaldi (2011)	99 Countries, for the period of 1980-2008	Panel data, fixed effect	Positive relationship between FDI and export of high technology products.
Wana Ismail (2013)	11 exporting and 30 importing countries in Asia; in years of 2004, 2005, 2006, 2009	Panel data, fixed effect	Positive relationship between FDI and export of high technology products.
Alemu (2013)	11 Western Asian countries, in years from 1994 to 2010	Panel data, Generalized Method of Moments (GMM)	Positive relationship between FDI and export of high technology products.
Abedini (2013)	19 Developing and 11 Developed Countries, in years from 1995 to 2008	Panel data, GMM	Positive relationship between FDI and export of high-tech products in developing countries.
Ying et al. (2014)	BRIC (Brazil, Russia, India and China) countries, for the years of 2000-2010	Panel data with varying coefficients model.	Ying et al. (2014)
Zhang (2015)	21 production sectors in 31 regions of China; for the years of 2005-2011	Panel Data, Instrumental Variable Estimations	FDI contributes exports competitiveness with upgrading export technology.
Topallı (2015)	India and Brazil, Turkey, South Korea, Thailand, Singapore; from 1998 to 2013	Panel Data, Cointegrated Augmented Dickey Fuller Unit Root Test and Emirmahmutoğlu and Köse (2011) Granger Causality test	Causal relation between FDI and high-tech product exports

DATA AND METHODOLOGY

The first hypothesis in the study was determined from the point that advanced technical knowledge and skills coming from FDI cause the increase in knowledge in the host country, technological progress and productivity (Caves,

1974; Findlay, 1978; Zhang, 2001; Newman et al., 2015 etc.) In accordance with the dominant opinion in the literature, it is expressed as follows.

H1: FDI have a positively significant effect on export of high technology products.

In the light of the regarding literature (OECD, 2001; Beck, 2003; Durham, 2004, Levchenko, 2007; Alfaro et al., 2010 etc.), current adaptations of the Ricardo's Theory of Comparative Advantages and other factors that provide international competitive advantage in Porter's Diamond Model, the other hypotheses of the research are identified as follows.

H2: Countries' level of financial development has a significant impact on the relationship between FDI and high-tech exports.

H3: The level of development in countries' regulatory quality has a significant effect on the relationship between FDI and high-tech exports.

The first hypothesis of the study concerns whether FDI contributes to the technological progress of countries. For this reason, the high-tech export value (Highex) reflecting the level of technological development is used as the dependent variable. Also, the key independent (explanatory) variable is FDI.

Besides, various interaction terms in to control the impact of country specific criteria on the link between FDI and high-tech export. The set of interaction terms include "Domestic Credit to Private Sector (DCPS)" for financial development level and "Regulatory Quality (RQ)" to capture governance performance. Here, "Domestic credit to private sector refers to financial resources provided to the private sector" and "Regulatory quality captures perceptions of the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development" (Worldbank, 2020). Moreover, Gross domestic products per capita (GDP) is used as explanatory variable in order to control its effect.

A comprehensive panel data set is conducted for 70 developing countries over the period 2002–2015. Data is extracted from three different sources. These are listed as The World Development Indicators (WDI), Global Financial Development Database (GFDD), and The Worldwide Governance Indicators (WGI). Data were analyzed through Stata 11 package program. In Table 2 is given detailed definitions, descriptive statistics and sources of the variables used in analysis.

Table 2: Definitions, Sources and Descriptive Statistics of Variables

Variable	Description	Mean	Std. Dev.	Min	Max	Variance	Skewness	Kurtosis	Source
Highex	Logarithm of Export of High-Tech Products (Current US $)	18,37	3,44	6,12	27,05	11.81	0.11	3.13	WDI
FDI	Logarithm of the FDI net inflows (Current US $)	21,16	1,84	12,15	26,40	3.39	-0.04	3.79	WDI
GDP	Logarithm of GDP Per Capita	8,16	1,29	5,27	11,19	1.67	0.14	2.49	WDI
DCPS	Domestic Credit to Private Sector (% of GDP)	41,60	35,71	0,00	233,40	1275.52	1.67	6.32	GFDD
RQ	Regulatory Quality Index	-0,20	0,74	-2,24	2,26	0.25	0.11	1.01	WGI

In line with the analysis purpose, two different estimation models are used where the subscript i signifies countries and t denotes years. In the first model, the significance of DCPS and RQ are investigated as using interaction terms.

$$Highex_{i,t} = \alpha + \beta_1 FDI_{i,t} + \beta_2 FDI * DCPS_{i,t} + \beta_3 DYY * RQ_{i,t} + \varepsilon_{it}$$

Model (1)

Alternatively, different threshold levels is created to analyze whether the effect of the FDI on countries differentiates with respect to their level of regulatory quality and financial development. To create different threshold levels, mean values of variables is used in a given year. It is assumed that countries above these thresholds to be more developed than those below. Therefore, the sample is divided into four subsamples: "financially more developed countries", "financially less developed countries", "countries that have more regulatory quality level" and "countries that have less regulatory quality level".

For this purpose, using these threshold levels two dummy variables are established for regulatory quality and financial development level. If a variable's average is greater than its real value, the corresponding dummies are equal to 0, otherwise 1. In other words, the country is financially less developed (or has a less regulatory quality level) than others, these variables are 0, otherwise 1. In

this way, the countries are divided, and the regressions are reestimated for the groups of more developed and less developed countries in terms of regulatory quality and financial development level.

Then, Model (2) is estimated in order to strengthen the validity of Model (1).

$$Highex_{i,t} = \alpha + \beta_1 FDI_{i,t} + \delta Controls + \varepsilon_{it}$$

Model (2)

In the study, GMM method is used over panel data set. In econometric analysis, panel data usage, which includes both time series and horizontal cross-sectional size, brings important advantages over other data types (Baltagi, 2008). One of these advantages is that it can be applied to dynamic processes. There is a dynamic relationship between FDI and high-tech exports. FDI can increase high-tech exports and potentials of high-tech products are among the target countries of FDI. In other words, there is an endogeneity relationship between these two variables. Therefore, it will be appropriate to use the GMM method developed by Arellano and Bond (1991), which is capable of analyzing the models consisting of dependent and independent variables which have endogeneity relations with sensitive findings. This method is called as "Arellano – Bond linear dynamic panel-data estimation". It is designed for panels with short time series, models with dynamic processes and non-exogenous state of variables (Roodman, 2009). Under these conditions, the GMM estimator is the most appropriate method for the analysis of the research model in this study. There exist several papers utilizing Arellano and Bond (1991)'s GMM estimation for this purpose (see among others Carcovic and Levine, 2002; Bertrand and Zuniga, 2006; Liu and Zou, 2008; Jarreau and Poncet, 2012; Zhu and Fu, 2013; Saini and Sinhania, 2018).

EMPRICAL RESULTS

In the first step of estimations, the statistical significance of FDI and interaction variables is investigated. Table 3 presents the estimation results of Model (1).

According to results, coefficients of FDI*DCPS and FDI*RQ are positive and statistically significant for all regressions. That is DCPS and RQ have a decisive role on the impact of FDI. However, the coefficient of FDI is not significant. Moreover, the 3 lags of the FDI variable is also controlled since the knowledge that comes through FDI is accumulated and affects export over time. Particularly, high-tech products require the he high expertise, specialized skills and appropriate infrastructure, hence benefitting from FDI would take longer to produce high-tech goods. In the literature, there is no consensus how to decide the optimal lag selection in the context of knowledge diffusion.

However, a fairly new study show that appropriate time lag of FDI spillover changes (see Zhang et al., 2019).

According to results reported in Table3, lags of FDI still is not significant. Any significant relation between FDI and export of high technology products couldn't be found. As seen these results, the positive impact of FDI is dependent on countries' financial development level and regulatory quality level.

Table 3: GMM Estimation Results on Exports of High-Tech Products

	(1)	(2)	(3)	(4)
L.Highex	**0.204*** **	**0.199*** **	**0.192*** **	**0.188*** **
L.GDP	**1.743*** **	**1.161***	**1.716*** **	**1.161***
FDI	0.113	0.0851	0.102	0.0750
L.FDI	0.00748	0.00960	0.00150	0.00366
L2.FDI	-0.0913	-0.0960	-0.0922	-0.0968
L3.FDI	0.0375	0.0329	0.0314	0.0268
FDI*DCPS		**0.000570***		**0.000547***
FDI*RQ			**0.0371***	**0.0363***
Constant	-0.811	4.238	0.199	5.005
Observations	550	550	550	550
AR(1)	-2.15 (0.03)	-2.12 (0.03)	-2.14 (0.03)	-1.12 (0.03)
AR(2)	1.36 (0.17)	1.59 (0.11)	1.53 (0.12)	1.74 (0.08)

Note: Asterisks demonstrate statistical significance levels (***: $p < 1\%$; **: $p < 5\%$; *: $p < 10\%$)

In the second step of analysis, it is investigated that the validity of the question whether there are variations in the effect of FDI on high-tech export between more and less developed countries according to their financial development level and regulatory quality level. In order to investigate this question, countries are separated in four subsamples as "financially more developed countries", "financially less developed countries", "countries that have higher regulatory quality level", and "countries that have lower regulatory quality level". As mentioned in the methodology section, a country above the mean of the DCPS and RQ in a certain year are assumed that it is more developed, whereas others that is below the mean are less developed.

Then, the Model 2 is rerun separately for the four subsamples. While Table 4 presents GMM estimation results for financially more and less developed countries, outcomes for countries that have higher and lower regulatory quality level are shown in Table 5. In both of these tables, findings indicate that the coefficients of FDI is positively and statistically significant only in countries having more regulatory quality and more financially developed. The important point to note is that the coefficient of FDI is positively significant

in countries with higher levels of country-specific factors than in others. That is, FDI contributes to exports of high-technology product in countries that are more advanced in terms of finance and regulatory quality level. These findings support the analysis results of the first model.

Table 4: GMM Estimation Results on Exports of High-Tech Products for Sub-samples by Financial Development Level

	Financially More Developed Countries	Financially Less Developed Countries	Financially More Developed Countries	Financially Less Developed Countries
	(1)	(2)	(3)	(4)
L.Highex	0.119	0.0570	0.0818	-0.0458
L.GDP	-0.283	**3.244*** **	0.0487	**3.492*** **
FDI	**0.334*** **	-0.0326		
L.FDI			**0.197** **	0.0242
Constant	12.94**	-8.162**	13.82***	-9.493***
Observations	272	423	273	418
AR(1)	-1.49 (0.13)	-2.63 (0.008)	-1.43 (0.15)	-2.61 (0.009)
AR(2)	1.05 (0.29)	0.14 (0.88)	0.88 (0.37)	-0.48 (0.63)

Note: Asterisks demonstrate statistical significance levels (***: p < 1%; **: p < 5%; *: p < 10%)

Table 5: GMM Estimation Results on Exports of High-Tech Products for Sub-samples by Regulatory Quality Level

	Countries with More Regulatory Quality	Countries with Less Regulatory Quality	Countries with More Regulatory Quality	Countries with Less Regulatory Quality
	(1)	**(2)**	**(3)**	**(4)**
L.Highex	0.168**	0.0305	0.103	-0.0550
L.GDP	0.493	**2.354*** **	0.636	**2.649*** **
FDI	**0.243*** **	0.0380		
L.FDI			**0.141***	0.107
Constant	6.474	-1.071	8.695*	-3.191
Observations	372	323	371	320
AR(1)	-1.74 (0.08)	-2.53 (0.01)	-1.74 (0.08)	-2.33 (0.01)
AR(2)	0.69 (0.49)	0.01 (0.99)	-0.25 (0.79)	-0.001 (0.99)

Note: Asterisks demonstrate statistical significance levels (***: p < 1%; **: p < 5%; *: p < 10%)

Given the regarding literature, these results are consistent with the studies in which don't find any significant impact of FDI on high-tech export (see Braunerhjelm and Thulin, 2008; Ying et al, 2014). Some researchers reveal that knowledge spreads via FDI affect positively host countries by introducing further technologies and management capabilities (see Smarzynska Javorcik, 2004; Newman et al., 2015). By contrasts, others state that FDI affects host economies in a negative way when domestic firms cannot compete with foreign enterprises and cannot maintain their market share (see Haddad and Harrison, 1993; Liu, 2008). Hence, my initial outcomes demonstrate that the negative competition impacts of FDI may prevent benefits from FDI on high-tech export when considering are taken as a whole. In sum, the results show that FDI does not provide any enhancement in export quality when country-specific factors are ignored.

Moreover, empirical results point out that FDI contributes to export of high technology products only when a country has well developed financial market and high regulatory quality level. There are many studies which corroborate the importance of both financial development and regulatory quality level in the regarding relationship. On the one hand, Beck (2003), Manova (2008) and Kowalski (2011) report that financial markets provide relative advantage in international trade; on the other hand, Levchenko (2007) shows that institutional quality provides relative advantage in international trade. Additionally, Alfaro et al. (2010) indicate that the positive impact of FDI only occurred countries where have better financial markets. Also, many studies give evidences that governance indicators are essential factor in attracting FDI inflows (Globerman and Shapiro, 2002; Gani, 2007; Buchanan et al., 2012; Peres et al., 2018 etc.)

There are different reasons why financial development and regulatory quality are affected on exports of high technology products. In terms of financial development, for the foreign-financed industries, the cost of finding resources is lower in countries that have advanced financial markets (Rajan and Zingales, 1998). Therefore, financial advancement encourages capital accumulation by decreasing "moral hazard" and "adverse selection". It improves technical expansion and thus the development of high-tech products. In addition, the decline of "moral hazard" and "adverse selection" also lead to the export of high-tech products due to the rise of efficiency in R&D process and the absorptive ability of FDI. Lastly, it seems that financial development may give comparative advantage in export (Yu and Hu, 2015). In terms of regulatory quality, since weak institutions rises uncertainty, and transaction cost; cost of production increases, profitability decreases, and economic activities

decelerate (Cuervo-Cazurra, 2008). Moreover, poor institutions are reasons of lower investment, productivity, growth (Jude and Levieuge, 2017), low income and high macroeconomic volatility (Acemoglu et al., 2003). Besides, foreign investors decide to invest in which country according to institutional quality (Bevan et al., 2004).

In conclusion, if a country has weak financial market and poor regulatory quality, investors from well developed economies don't want to take risk here due to uncertainty, low profitability, transaction cost and incomplete knowledge. In these countries, the above-mentioned reasons are barriers to produce and export of high technology products.

CONCLUSION AND RECOMMENDATION

This study aims to measure the effect of FDI on high technology exports reflecting the technological development levels of the developing countries by taking into account the financial development and regulatory quality as country specific factors. For this purpose, GMM dynamic panel estimator is applied on a panel data set constructed for 70 developing countries between 2002 and 2015.

The empirical results show that impacts of FDI contributes to exports of high technology product only when adequate financial development and regulatory quality level is available in the host country. Namely, the level of financial development and regulatory quality has a decisive role in the relationship between FDI and Exports of High Technology Products. In countries where are financially more advanced and have better regulatory quality, FDI provides contribution to export of high technology products.

These results are guide for developing countries. When above conditions are taken into consideration, in order to ensure maximum benefits in the technological sense from FDI, developing countries should reach a certain level of financial infrastructure and universal governance approach.

This study can be extended for future research with using various country specific determinants such as law and democracy indexes. In addition, the study can be reconsidered with firm or industry level data to reveal more clear results. Finally, "Complexity Index" that appears the complexity level of the nations' export baskets produced by Hidalgo and Hausmann (2009) can be used as a further measure of export quality.

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