MYKOLAS ROMERIS UNIVERSITY

IN COOPERATION WITH MIDDLESEX UNIVERSITY

BUSINESS AND MEDIA SCHOOL

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THE ASSESMENT OF THE IMPACT OF FOREIGN DIRECT INVESTMENT ON THE COUNTRY'S COMPETITIVENESS

A Master Thesis

Supervisor

assoc. prof. dr. Rita Remeikienė

VILNIUS, 2015

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ABBREVIATIONS

ANOVA – analysis of variance, which is a test of differences between groups in terms of interval measure, testing one dependent variable in terms of one independent variable.

CRONBACH'S ALPHA – measures reliability and consistency.

LIKERT SCALE – respondents rate their response on a scale of agreement.

KENDALL'S W – measures the agreement among the respondents.

BPM5 – Balance of Payments Manual, fifth edition (IMF)

IMF – International Monetary Fund

EUROSTAT – Statistical Office of the European Communities

FDI – Foreign Direct Investment

M&A – Mergers and Acquisitions

OECD – Organization for Economic Co-operation and Development

UNCTAD – United Nations Conference on Trade and Development

CEE – Central Eastern Europe

WEF GCI – World Economic Forum Global Competitiveness Index

IMD – Institute for Management Development

IFC – International Finance Corporation

INTRODUCTION

Actuality of the topic. Foreign direct investment (further - FDI) plays a remarkable part in a global world of competitiveness. In recent years, the search for opportunities and means of development created the fundamental goal and importance to attract FDI for any jurisdiction. Nations compete because world markets are accessible. FDI is recognized and associated with the phenomenon that brings wealth, growth and new opportunities to the host country. FDI provides the host country with numerous benefits such as sources of new technologies, management skills and strong impetus to economic development, creates spillovers of technology, contributes to the integration into international trade and assists in creation of a competitive business environment. All these factors contribute to higher economic growth, which is the most powerful tool for combating poverty. FDI also may improve environmental and social conditions in the host country by transferring advanced technologies and creating socially responsible corporate policies.

UNCTAD states in "World Investment Report 2014" that global FDI flows could rise to $1.75 trillion in 2015 and $1.85 trillion in 2016. The report declares that the growth will be driven by the investments in developed economies due to the spread of their economic recovery. However, the risks associated with regional market conflicts, unfavorable policies could slow down FDI flows.

Competitive enterprises drive a country's competitiveness. Regardless of globalization, scientific literature emphasizes the role of each nation within the local environment where enterprises function. The management of FDI becomes easier and more convenient due to liberalization of regulations. The main objectives of investment incentives are the creation of new working places, attraction of innovations and technology transfer. However, Governments should not only promote incentives but also establish efficient monitoring procedures to mitigate the risks.

The scientific level of the research. FDI and its impact on the country's competitiveness have been a widely studied topic in recent researches however there are still questions concerning the real effects of FDI. The scientific studies regarding FDI can be classified into the following areas:

- The debates whether the impact of FDI on a country is only beneficial were conducted by Keller and Yeaple (2003), Haskel et al. (2007), Görg and Strobl (2001), Lipsey (2002), Epstein (1999), Han X. Vo (2004).

- The impact of FDI has been researched by Moran (2014), Kinda (2014), Nicolini and Resmini (2010), Javorcik (2014), Blanc-Brude et al (2014).

- The concept of FDI has been studied by Navickas (2008), Hajzler (2014), Milner (2014) however scientific literature lacks of a universal concept of the examined phenomenon.

- Overviewed literature provides with the factors which attract the FDI, Dunning (1988) "Oli paradigm", Campos (2003), Hornberger et al. (2011).

- The national competitiveness has been researched by Anastassopoulos (2007), Green (2012), Pazienza (2014).

- Lithuanian scientists have also researched FDI phenomenon. Valodkiene and Snieska (2012) emphasized, that national competitiveness can be increased through innovations with the help of FDI. Kuliaviene and Solnyskiniene (2014) stated that FDI has a significant impact on the country's increased welfare.

The existing scientific studies lack of researches which would focus on the impact of FDI on the competitiveness of the country through the factors which attract and repel FDI.

The problem of the scientific research: The impact of FDI can be both positive and negative therefore it is essential to assess the case of Lithuania formulating the problem: what is the impact of FDI on Lithuania's competitiveness?

The object of the scientific research: The impact of FDI on Lithuania's competitiveness through the interaction of FDI components and the most or least attractive factors for the investment.

The aim of the scientific research: To assess the factors which effect FDI attraction to Lithuania and their interaction with the level of Lithuania's competitiveness.

The objectives of the scientific research:

1. To summarise the theoretical aspects of FDI and the impact on the country's competitiveness.
2. To define the methodology of empirical research for the impact of FDI on country's competitiveness.
3. To perform empirical research on the impact of FDI on Lithuania's competitiveness through the interaction of FDI components and the most or least attractive factors for the investment and propose the recommendations how to improve investment climate and attract more FDI.

The methods of the scientific research: systematic literature analysis, statistical data analysis, comparative analysis, regression analysis and expert survey.

Novelty and the level of scientific significance of the research. FDI has been a target goal for many countries, including Lithuania in recent years therefore the researched topic is relevant nowadays. The master thesis empirical research has been conducted from another perspective more innovative one, about which the scientific studies lack of researches. The research has consolidated different levels of competitiveness and established the evidence of FDI impact. Regression analysis examined the relationship between the FDI components and the position of Lithuania in WEF GCI. The data collected

from expert survey provided primary exclusive information from current investors in Lithuania who have revealed exceptionally important facts about their decision to choose Lithuania for FDI. As a result, a unique model has been created which covers the factors which attract or repel FDI to the country and ultimately FDI impact on Lithuania's competitiveness. The master thesis and created unique model would be a beneficial tool for Government institutions, mainly Ministry of Economy, Ministry of Foreign Affairs and also to the head of the country, the President of Lithuania. The importance to attract FDI is discussed, planned and approved within numerous functions of the mechanism which governs and leads Lithuania, therefore only consistent and goal oriented policy with common and efficient communication between the governing bodies having efficient tools, namely created model, would enable Lithuania as a country to achieve expected results, attract FDI and increase the competitiveness.

The performed scientific research in master thesis on the impact of FDI on the competitiveness of Lithuania could be more elaborated and researched in future scientific doctoral studies. The topic could cover the opposite circumstances, the impact of FDI on the competitiveness of Lithuania when the biggest foreign investors exit the market suddenly.

Limitations of the scientific research. The chosen methods and variables for the assessment of the scientific research produce the results. It is very important to choose the appropriate methods in order to present statistically correct results and make accurate conclusions. The most important indicators which show the competitiveness of the country are economic indicators however the use of correlation analysis with the economic indicators was rejected due to non sufficient and statistically non significant results. Therefore the competitiveness of Lithuania will be assessed using the components of FDI and the place of Lithuania in WEF Global Competitiveness Index through multiple regression analysis. In order to identify the factors which attract the most/least foreign investors to Lithuania, the qualitative research expert survey will be used. The biggest challenge was to arrange the agreement from the experts to participate in the survey. The majority of experts was not willing to answer the questionnaire or was not easily available for the conversation while trying to receive information about the most (not) attractive factors for FDI in Lithuania.

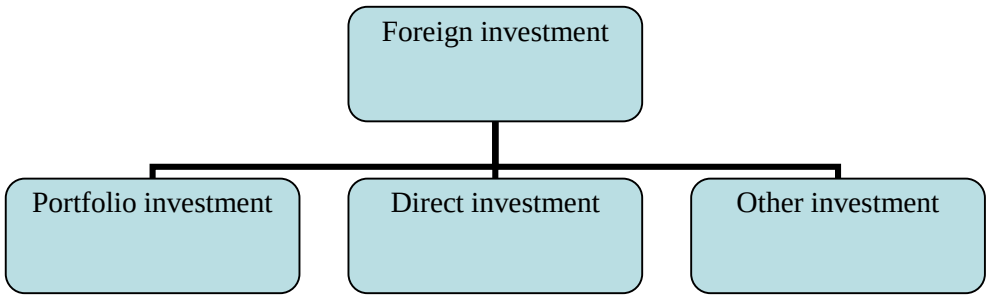
Structure of Master thesis. Master thesis is organized as the following: firstly, the topic in the scientific literature is briefly reviewed in the theoretical part. Secondly, methodological part of the research is provided. Thirdly, empirical research is performed and findings are discussed. And finally, conclusions are drawn. The Master thesis is comprised of 81 pages including annotation, summary and annexes, contains 14 tables and 25 figures.

1. THE THEORETICAL ASPECTS OF FDI

1.1. The concept of FDI as a global phenomenon

Foreign direct investment (FDI) is an investment in a business by an investor from another country for which the foreign investor has control over the company purchased. The Organization of Economic Cooperation and Development (OECD) define control as owning 10 percent or more of the business. Businesses that make investments in various foreign countries are often called multinational corporations (MNCs) or multinational enterprises (MNEs).

According to Navickas (2008), the notion of FDI can be explained as the transfer of any functioning capital from one country to another. The categories of foreign investment are showed in Fig. 1.



Source: Navickas, 2008

Fig. 1. Categories of foreign investment

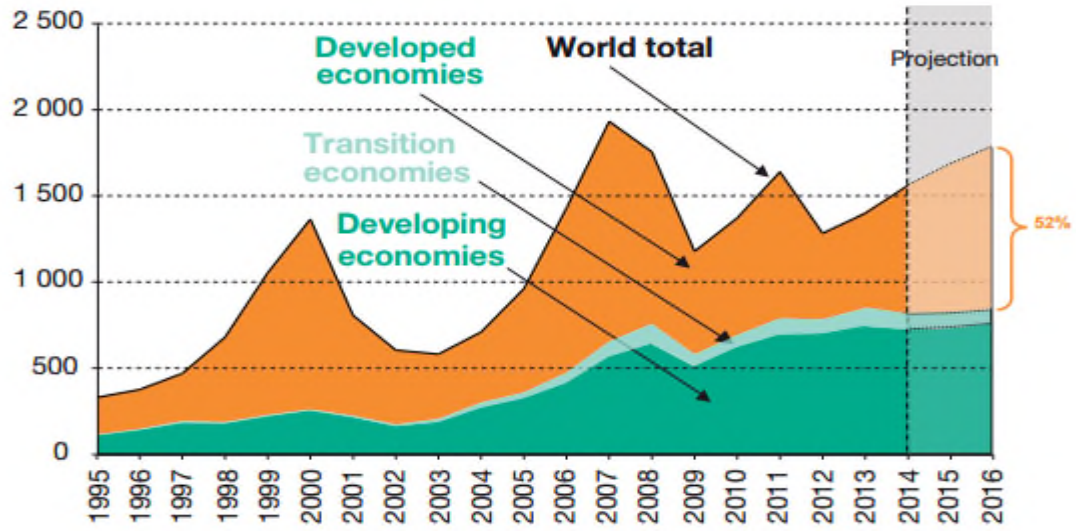
Navickas (2008) explains that foreign direct investment is the investment, which forms long-term relationships between the direct investor and the company which accepts the investment, as seen in Fig. 1. The lowest threshold which gives to foreign investor the voting right and the right to control and manage the company is 10 percent. Moreover, the portfolio investment holds less than 10 percent of voting rights and does not influence the control and management of the company. And finally other investment covers all financial relationships with foreign investors which do not fall into earlier mentioned categories.

The fifth edition of the IMF's Balance of Payments Manual (BPM5, 1993), defines FDI as the investment with the purpose to acquire long lasting interest in enterprises of the host country which is different than that of the investor's origin country. The investment is direct because the investor, who could be a foreign person, company or group of entities, is seeking to control, manage, or have significant influence over the foreign enterprise.

OECD (2014) provides the following definition of FDI statistics: “FDI statistics consist of FDI flows, FDI positions (stocks) and FDI income. FDI flows are cross-border financial transactions within a given period (e.g. year, quarter) between affiliated enterprises that are in a direct investment relationship. FDI positions relate to the stock of investments at a given point in time (e.g. end of year, end of quarter). FDI include equity (10 percent or more voting shares), reinvestment of earnings and inter-company debt. FDI income is the return on direct investment positions of equity (dividends and reinvested earnings) and debt (interest).

FDI is measured on an asset/liability basis or on a directional basis. On an asset/liability basis, FDI statistics are organized according to whether the investment relates to an asset or a liability for the reporting country. On a directional basis, FDI consists of outward investment and inward investment. Outward investments are cross-border investments by direct investors resident in the reporting country while inward investments are investments by non-resident investors in the reporting country” (p. 11).

UNCTAD provides statistics for two decades of Global FDI, the trends are reflected in Fig.2.

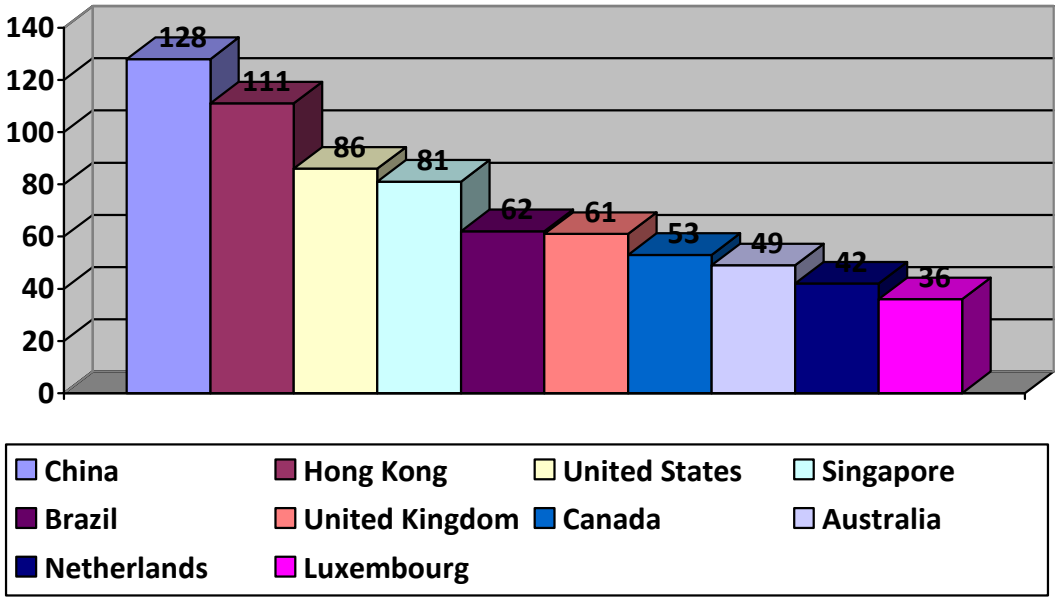


Source: UNCTAD, 2015

Fig. 2. Global FDI flows (billions of USD)

The trends of FDI worldwide are fluctuating, as seen in Fig. 2. Global FDI declined by 8% in 2014 to an estimated US$1.26 trillion, down from US$1.36 trillion in 2013. The decrease in FDI flows was influenced by economic uncertainty and geopolitical threats including regional conflicts and the US$130 billion buy-back of shares by Verizon (United States) from Vodafone (United Kingdom). However the projection for upcoming years is positive, expecting the FDI to increase.

UNCTAD ranked top 10 countries which attract the most FDI worldwide, see Fig. 3. The leaders appear to be outside European continent with Asian and American markets indicated at the top of the list.



Source: UNCTAD, 2015

Fig. 3. Estimated FDI inflows: top 10 host economies, 2014 (Billions of USD)

Fig. 3 shows that China became the largest FDI recipient in the world in 2014. The United States fell to the third largest host country. Four countries in the top five of the recipients of FDI are developing economies, such as China, Hong Kong, Singapore and Brazil. The biggest FDI recipient in Europe is the United Kingdom which takes the sixth place in top ten FDI recipient list and leaving Luxembourg in the last tenth place.

Scientific studies have disclosed that FDI not only brings positive features such as spillover of new technologies, increased market competition but also negative ones such as destruction of local market equilibrium. FDI flows vary in forms and types, amounts and the impact they bring to the host country. FDI as a global phenomenon carries out strengths and weaknesses.

The results of scientific studies identify different impact of FDI. The impact that FDI brings, depends on many factors, including the motives of the investor, the reasons why the host country and the foreign investor are looking for the possibilities for mutual interaction to fulfill each party's demand for FDI and the conditions that a host country offers to the investor.

The strengths and weaknesses outlined in scientific literature are presented in Table 1.

Table 1. Features of FDI in scientific literature

Author	Strengths	Weaknesses
Markusen and Venables (1999)	Increased product market competition.	Destruction of equilibrium in local market.
Moran (2014)	FDI upgrade and diversify production and export.	Market imperfections can reduce the benefit of FDI.
Blomstrom (2002)	Spillover of knowledge, new technologies	
Anastassopoulos (2007)		Governments do not operate efficiently and host countries cannot fully benefit from FDI.
Kinda (2014)	Infrastructure, institutions, and human capital attract FDI.	Tax incentives are not primary interest of foreign investors.
Han X. Vo (2004)	Positive correlation between FDI and economic growth in developing countries.	FDI is favorable to growth only if appropriate conditions exist in the host economy.
Lipsey (2002)	Higher wages, advance technology, higher productivity level.	Small local businesses might be forced to leave the market.
Barrios et al (2004)	Greater competition.	Exit of smaller local firms
Kuliaviene and Solnyskiniene (2014)	FDI contributes to economic development.	
Moura and Forte (2009)	Transfer of new technologies and knowledge, integration into global economy.	Increase of inflation, MNC control over the assets.
Kornecki (2010)	Increased economic growth of the host country.	
Javorcik (2014)	FDI bring good jobs to host countries and increase productivity.	Governments should create a strategy how to attract FDI and use benefits.
Alvarez and Marin (2013)	Spillover affects increase competitiveness.	
Gaspareniene and Remeikiene (2015)	Increased GDP growth and export.	

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As a conclusion of Table 1, can be said, that in ideal world both parties should benefit from the

transaction (investment abroad and the receipt of foreign funds) and one of the most significant benefits for the host country could be the increase of the competitiveness in different levels such as competitiveness between the neighboring countries, improved internal country indicators, increased competition in local market, including industries and companies and competitiveness among the labor force.

The concept of competitiveness and indicators together with positive and negative impact of FDI will be overviewed in detail further in the work. The scope of the research will be based on FDI which comes to the host country from foreign investors who transfer their business and acquire existing companies or establish new businesses, consisting of foreign equity capital when the investor purchases shares of the company from host country, or using the reinvested earnings and intra company debt transactions creates a new entity and forms long lasting business relationship.

1.2. The types of FDI

Merger and acquisition, green-field are the types of FDI. Investing abroad by acquiring existing companies and taking the control over them is the form of M&A. Greenfield investment appears through building new facilities (OECD 2008). FDI through green-field investment improves the welfare of consumers by creating competition in the market and forcing the prices to go down. Competition in the market can increase the growth of production, the innovation of processes and products.

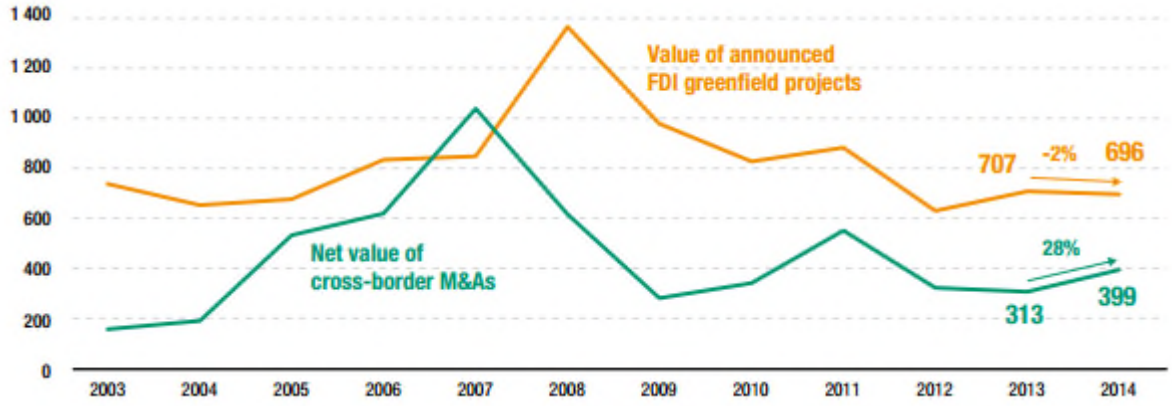
FDI could be horizontal or vertical according to Markusen and Venables, 1999. Horizontal investment is likely to occur where markets are large, and transport cost are high, whereas vertical investment arises where the cost of labor and intermediate inputs are low (Markusen and Venables 1999). Horizontal investment supplies host market through an affiliate with similar products which the investor offers in its home market. The goals are to save costs and to get strategic advantages in the competition within local market participants. Contrary, vertical FDI offers a bigger variety of products than in its home country and is resource-seeking and aims to minimize production costs, typically by utilizing a cheap labor force, and is driven by factor cost differentials.

According to Kinda (2014), horizontal FDI focus more on local host country markets, whereas vertical FDI are export oriented. Markusen (2002) described the most general knowledge-capital model, which combines both vertical and horizontal multinational behavior.

Hill (2003) states, that mergers and acquisitions are more popular due to the reason that it is quicker to execute than green-field investments. Acquisition is more beneficial to the investing company due to the fact, that potential firms may already have distinct brand loyalty, strategic assets as trademarks,

strong production systems, and great customer relationships. To acquire the firm is easier and less risky than build up new assets from the ground through green-field investments. Foreign companies can also increase the efficiency of the acquired unit by transferring technology, capital or management skills.

What is more, FDI encourages economies of scale through the expansion of production and achieving profit goals through the greater quantity produced resulting in the lower per unit cost. Firm-level economies of scale are driven by the intangible assets, such as business practices, knowledge and patents, therefore 'horizontal' (intra-industry) enterprises are becoming increasingly important and encourages the development and growth of multinational enterprises (Barrell and Pain, 1997). Fig. 4 provides the overview and recent trends on M&A and Greenfield projects.



Source: UNCTAD, 2015

Fig. 4. Cross-border M&A and Greenfield investment projects, 2004–2014 (Billions of USD)

Fig. 4 shows different trends among the types of investment during the period of 2004-2014. Global financial crisis in 2008 affected the amount of M&A and Greenfield investment projects significantly since the numbers decreased in times. M&A began to decrease in 2007, this proves that the existing companies already forecasted coming crises and were not eager to buy each other. Whereas new projects in the type of Greenfield continued to be established for another year, a significant growth is noticed within 2007 due to pre-crises overwhelmed borrowing opportunities. However, the recent number for M&A investment increased by 28 percent during the period of 2013-2014, whereas Greenfield projects during the same period of 2013-2014 have decreased by 2 percent. This shows the demand for totally new investment projects worldwide is not such big like for the M&As type of investment. The risk tolerance is noticed higher since the investors are likely to continue with already established companies rather than creating new projects which might turn out to be risky.

According to Table 2, FDI differs in terms of establishment which could be a totally new entity or acquired existing one and in terms of services provided which could be the same as in origin country or diversified and expanded.

Table 2. FDI classification

Type of FDI	Features
M&A	M&A means the purchase of existing company. The investments in the form of M&As will not involve significant changes in the performance of economic variables such as production, employment and turnover unless the acquired enterprise is subject to significant restructuring. M&As are perceived to include only a change of ownership in an existing corporate entity.
Greenfield	Greenfield investments provide fresh capital and additional jobs and refer to new investments, are likely to add new dimensions to the economic performance of the host economy and to the earnings of the direct investor.
Horizontal	Investment which tends to be market seeking, and involves establishment of foreign facilities engaged in functions similar to those in investors' home country.
Vertical	Investment which involves a distribution of different activities according to the conditions and circumstances of the host country.

Source: OECD (2001, 2008)

To sum up information provided in Table 2, existing types of FDI can either create a totally new business or restructure and manage the existing one providing two types of services spectrum with the intention either to offer existing or create totally new different services or activities within the host country's market.

1.3. The necessity of FDI

The execution of demand for FDI from the perspective of investor is analyzed comprehensively. There are numerous aspects which encourage FDI flow. According to Daniels (1995) the main characteristics of interest for FDI are control, access to foreign markets and foreign resources, high commitment of capital, higher foreign sales than exporting, partial ownership.

The access to foreign markets is the goal for the foreign investor and the host country, according to

Alvarez and Marin (2013). Foreign investor is interested in the access to new markets and the possibility to expand the scope of business. FDI can be an effective way to achieve this interest. Starting a business in a foreign market can be one of the options to enter a new market. Businessmen are in search for the opportunities which would reduce costs and increase profits. If the labor market is cheaper and the regulations are less restrictive in the target foreign market, then FDI will likely take place in this country and will benefit from the reduction of the production cost.

According to Desai et al. (2001), Bellak and Leibrecht (2009), tax consideration is another important determinant which plays a significant role in the decision making for FDI. The business related expenses in a host country are greatly influenced by taxation. Government efficiency can affect business conditions in the host country by influencing the legal and regulatory environment. Successful implementation of reforms connects the country to the global business environment and stimulates the growth.

The size of the host country market, and country economic performance which is associated with actual and expected profitability is one more factor which attracts the investors. (Benacek et al., 2000, Jaumotte, 2004). Multinational enterprises also search for better locations with competitively high labor skills in order to maximize the returns of their investment strategies. Economic and social determinants represent the degree of economic integration of a country to the global marketplace. Availability of good infrastructure is a necessary and sufficient condition for foreign investors to operate business locally.

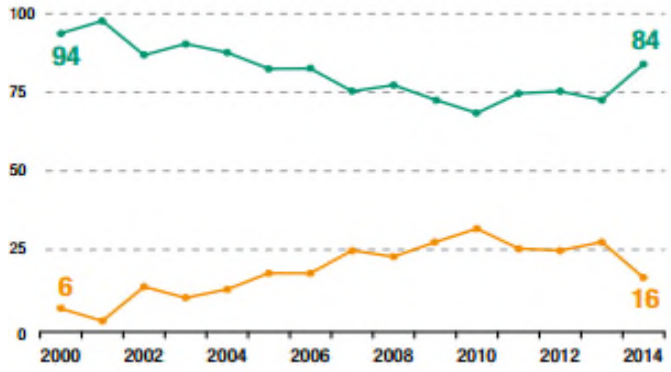
The demand for FDI from the perspective of host country is discussed further in detail. FDI can be one of the crucial external recourses which can improve country's whole welfare and competitiveness. The need to develop the infrastructure expresses high demand for FDI. Developing economies became interested in external resources as the unique way of promoting growth and development, although simultaneously (Trevino et al., 2002). Sometimes interests of investors diverge from interest of receiving economy. That is why government regulations must be in place. Javorcik (2014) states, that FDI bring good jobs to the host country and the labor force can benefit through innovation spillovers, trainings and competitive salaries.

According to Moran (2014), host countries seek to attract FDI in order to be able to upgrade and diversify their industrial production and export. Therefore the strategies which enable labor market flexibility and favorable business conditions are set in place. Kuliaviene and Solnyskiniene (2014) agree that FDI play a significant role in the host country's economic development and growth factor.

Poorer countries which have limited amounts of capital can receive finance from wealthier countries through FDI, and it can become a major source to increase competitiveness. Numerous

governments have even introduced various forms of investment incentives to encourage foreign MNCs to invest in their jurisdiction in order to encourage competitiveness, promote economies produce more goods for international markets. Epstein (1999) claims that countries are trying to attract investment by subsidies, and tax breaks can lead to substantial reduction of government revenues.

UNCTAD monitoring shows the improving trend within the liberalization and modernization of investment laws and guidelines to attract FDI from 2010, see Fig. 5.



Source: UNCTAD, Investment policy monitor 2015.

Fig. 5. Changes in national investment policies, 2000 - 2014 (per cent)

According to UNCTAD, countries were more liberal before the global financial crises, as seen from the Fig. 5 that liberal policies were quite numerous and strict ones were much fewer. However after the crises in 2008, the restricting policies have increased and the liberalization of policies has decreased. Looking at the recent data, tendencies are slightly different. The percentage change from 73% in 2013 to 84 % in 2014 shows that countries and economies tend to be more open and liberal towards FDI, as seen in Fig. 5.

Country authorities affect the physical and human infrastructure of the country and set the rules to carry out business activity. According to Brandl et al. (2013), the structure of labor relations and the local environment plays an important role in the competition between the firms. According to Anastassopoulos (2007), accumulation of FDI is one of the ways for economies to become competitive and integrated into global markets.

Moran (2014) states, that liberalization of policies is an important element to attract FDI. Government can also impact the flow of FDI through taxation, support and encourage the operation of enterprises. Tax revenue accumulated from newly generated products, employee income bursts economy and allows the host country to increase competitiveness. Government can use the revenue from economic growth to improve infrastructure by building roads, educational institutions, developing communication

system, creating new domestic industries. As a result, the MNEs will manage to keep the instructed workers only if they offer better conditions than the local firms do. MNE might anticipate that by investing abroad and teaching local workers to use some particular technology and might lead either to spillovers of knowledge to local firms or higher wages to prevent workers from moving.

The demand to foster the development of local industry grows the need for FDI. A local firm can establish a strategic alliance with a foreign investor and develop a new industry in the country. The home country establishes a new market, and the MNE gets access to a new market through its partnership with the local firm.

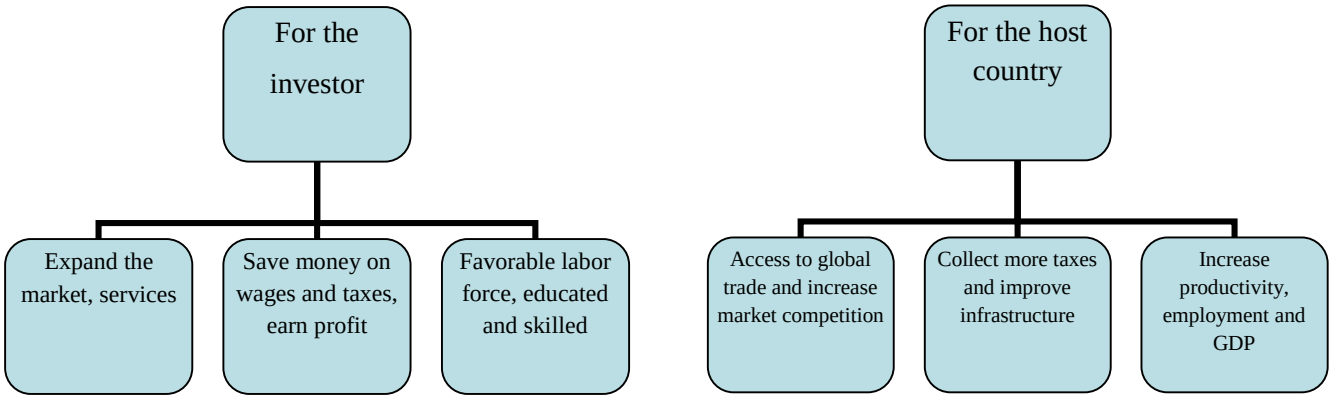
According to IMD World Competitiveness Center, there are ten golden rules for investors and host countries:

”The 10 Golden Rules of Competitiveness:

1. Create a stable and predictable legislative and administrative environment.
2. Ensure speed, transparency and accountability in the administration, as well as the ease of doing business.
3. Invest continually in developing and maintaining infrastructure both economic (road, air, telecom,) and social (health, education, pension).
4. Strengthen the middle class: a key source of prosperity and long-term stability.
5. Develop privately-owned medium-sized enterprises: a key element of diversity in an economy.
6. Maintain a balanced relationship between wage levels, productivity and taxation.
7. Develop a local market by promoting private savings and domestic investments.
8. Balance aggressiveness on international markets with attractiveness for added-value activities.
9. Counterweight the advantages of globalization with the imperatives of proximity to preserve social cohesion and value systems.
10. Always return the tangible signs of successful competitiveness to the people by providing a higher level of prosperity for all”.

The overview of scientific literature allows concluding the factors which identify the necessity of FDI from the investor and the host county’s positions, which appear to have common intentions. As it can be seen from Fig. 6, the investor searches for the opportunities to expand his services at the minimum cost, including wages and taxes and maximum return, including expansion of the services and appropriately

chosen labor force. On the other hand, the host country has the need to access the global markets, increase Government budget and revenue and improve the welfare of the country.



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Fig. 6. Factors indicating necessity of FDI

To sum up, the necessity for FDI can be identified from both parties: the investor and the host country. The benefits for both parties from FDI depend on the conditions and circumstances for the investment provided by the host country. Fig. 6 shows that each party's need for FDI can be fulfilled by another party's presence however the success will depend on the actions each party will perform in order to fulfill the demand of FDI. 10 golden rules provided by IMD World Competitiveness Center could be one of the guidelines how to maintain the balance for the need of FDI.

2. THE ASSESSMENT OF THE IMPACT OF FDI ON THE COUNTRY'S COMPETITIVENESS

2.1. The concept of country's competitiveness

National competitiveness defines a country's ability to attract global attention as a trade partner or as a primary location for the investment from abroad. The indicators of competitiveness calculated by the OECD's Economics and Statistics Department form part of a common general analytical framework which is defined by a particular characterization of the links between foreign trade variables (export and import volumes) and the measures of price-competition influencing them. Various measures of import, export or overall competitiveness have been identified, together with their respective fields of application.

There are different criteria in defining the country's competitiveness however it is related with the growth and productivity of the country at micro and macro level. According to Anastassopoulos (2007) the role of government impacts country's international competitiveness through the improvement of regulatory and business environment, taxation. According to Snieska and Bruneckiene (2009), the country's competitiveness is the root cause which impacts the socio-economic development scope and results. Snieska (2008) states, that competition intensity can be determined by market shares distribution, market rate of growth and market profitability.

There are different theoretical approaches which define the concept of competitiveness. This concept will be analyzed according to three indices: The World Competitiveness Yearbook prepared by Institute for Management Development (IMD), Global Competitiveness Report issued by World Economic Forum (WEF) and Business Competitiveness Ease of Doing Business Report released by International Finance Corporation (IFC) which together provide a substantial ground for the execution of the concept.

The World Competitiveness Yearbook prepared by Institute for Management Development (IMD) provides the background of their report: the criteria used to compute the rankings are grouped into 4 main factors divided into 20 sub-factors. The World Competitiveness Yearbook ranks and analyzes the ability of nations to create and maintain competitive environment. It means that wealth creation takes place primarily at enterprise level (whether private or state owned) - this field of research is called: "competitiveness of enterprises." However, enterprises operate in a national environment which enhances or hinders their ability to compete domestically or internationally - this field of research is called: "competitiveness of nations". Table 3 summarizes IMD criteria for measuring competitiveness of a country.

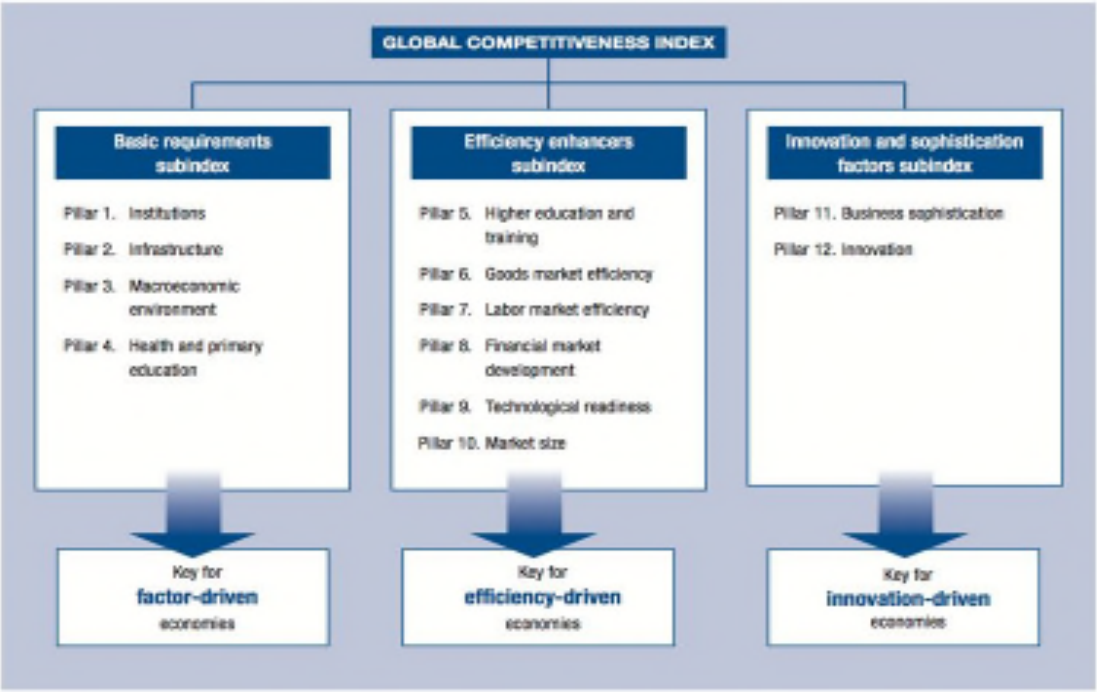
Table 3. IMD criteria for measuring competitiveness

Economic Performance	Domestic economy	International trade	International investment	Employment	Prices
Government Efficiency	Public finance	Fiscal policy	Institutional framework	Business legislation	Societal framework
Business Efficiency	Productivity	Labor market	Finance	Management practices	Attitudes and values
Infrastructure	Basic infrastructure	Technological infrastructure	Scientific infrastructure	Health and environment	Education

Source: IMD, 2014

According to IMD, see Table 3, the criteria which measure the country's competitiveness are divided into four categories each followed by five subcategories. The economic performance is assessed by the criteria which show how the country functions internally and externally, including domestic economy with variables (size, growth, wealth and forecasts), international trade, international investment (investment and finance), employment statistics, prices (CPI, cost of living index, apartment and office rent, food and gasoline prices). The efficiency of Government is measured by the results from the main areas that the Government is responsible for which include public finance, fiscal policy, institutional framework (Central bank and State efficiency), business legislation (openness, competition and regulations, labor regulations) and Societal framework. The efficiency of business show how the domestic market functions and is determined by the following criteria including productivity and efficiency, labor market (costs, relations, availability of skills), finance (bank and stock market efficiency, finance management), management practices and attitudes and values. Infrastructure denotes the facilities and services operating in the country and is measured through such parts as basic, technological and scientific, health and environment and education.

World Economic Forum (WEF) Report on Global Competitiveness provides the relationship of the results between government, business and civil society through the set of institutions, policies and factors that determine the level of productivity of a country, see Fig. 7.



Source: WEF 2014

Fig. 7. The Global Competitiveness Index framework

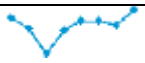
Competitiveness in The World Economic Forum's Global Competitiveness Report is defined as a cluster of policies, institutions and factors which identify the level of productivity. WEF GCI reports the results based on the 12 pillars of competitiveness separately which are not independent.

Those pillars tend to interact with each other, and a weakness in one area often has a negative impact in other area. As an example, a strong innovation capacity (pillar 12) is dependent on a healthy, well-educated and trained workforce (pillars 4 and 5) which need to absorb new technologies (pillar 9), and without sufficient financing (pillar 8) or an efficient goods market it makes possible to take new innovations to market (pillar 6).

Although the pillars are aggregated into a single index, measures are reported for the 12 pillars separately because such details provide a sense of the specific areas in which a particular country needs to improve. Overall 12 pillars provide a comprehensive overview of the indicators in the particular country and assess the competitiveness from the variety of different perspectives.

Fig. 8 lists European countries which take the highest position on WEF list, having Switzerland in the first position and Luxembourg at the end of top 10 list.

Europe Top 10 The Global Competitiveness Index 2014-2015	Global Rank*
Switzerland	1
Finland	4
Germany	5
Netherlands	8
United Kingdom	9
Sweden	10
Norway	11
Denmark	13
Belgium	18
Luxembourg	19

Emerging and developing Europe	Trend	Previous ranking	Current ranking
Lithuania		48	41

Source: WEF 2015

Fig. 8. Top 10 countries in Europe according to WEF GCI in 2014 and the rating for Lithuania

Fig. 8 shows that top ten European countries according to WEF GCI rating for 2014 are the ones with the strongest economies and are the leaders in different sectors. Lithuania is ranked as 41st among 144 economies. The result is not critical if taken into consideration the total number of economies ranked, however Lithuania needs to improve the competitiveness in order to be among the leading countries.

Business Competitiveness Ease of Doing Business Report prepared by International Finance Corporation (IFC) ranks economies according to their ease of doing business based on the following factors: Starting a business, Getting electricity, Registering property, Enforcing contracts, Getting credit, Protecting minority investors, Paying taxes, Dealing with construction permits, Trading across borders, Resolving insolvency, Labor market regulation.

These three indices contain few differences in terms of their assessed factors. Ease of Doing Business Report does not execute macroeconomic and financial environment in a country. World Competitiveness Yearbook (IMD) and Global Competitiveness Report (WEF) execute similar factors, however the latter is more comprehensive and will be used for empirical research of master thesis.

2.2. The positive impact of FDI

OECD enumerates quite a comprehensive list of positive impact on a host country competitiveness which includes but is not limited to advanced trade and investment, technology transfers, human capital enhancement, robust competition within local market, social and environmental benefits.

The empirical evidence on the impact of FDI on a host country's competitiveness differs among the countries. However, it is stated consensually that there is a broader impact of FDI other than only on imports and exports. Developing countries certainly benefit from FDI due to FDI contribution in integrating the host economy to the global economy and increasing exports and imports. Trade and investment are increasingly recognized as mutually reinforcing channels for cross-border activities.

The impact of FDI on human capital significantly depends on the government policies and efforts to attract FDI into the country. Governments seek to attract FDI, which would enable knowledge spillovers, bring technology innovations and improve job related education. Individuals, who are employed by MNE subsidiaries, can benefit from enhanced on-the-job training and learning. Such benefits can have broader effects as labor moves to other firms and spreads their knowledge. Investment in education is one of the most important aspects of creating an enabling environment for FDI. In order to use the human capital spillovers at a maximum level, it is paramount to reach a certain level of education and trainings in order to attract FDI and to benefit fully from the presence of the foreign enterprise.

Domestic economic development and competition within the local market can be increased and assisted by the presence of foreign enterprises leading to higher productivity, lower prices and more efficient allocation of resources. On the other hand, competition can be damaged due to the entry of MNEs through increased levels of concentration in host-country markets. According to Barrios et al., (2004), FDI can be positive for local firm's expansion and that positive externalities are more likely to occur when the larger is the amount of capital transferred through FDI and the greater is the efficiency of local firms. Local firms need to adapt to new competitors since FDI represents a greater competition factor than imports due to the factor market size limitation.

Positive influence of spillover effects are discussed in the scientific literature of Keller and Yeaple (2003) and Haskel et al. (2007), Görg and Strobl (2001) and Lipsey (2002). Host economies benefit from FDI through the spread of good practices and technologies, subsequent spillovers to domestic businesses. Foreign investment may help to reduce poverty and improve social conditions. Training prevents people from moving to local competitors. FDI spreads knowledge and superior technology "spill over" to domestic firms, assisting them in improving their efficiency and productivity. "FDI inflows create a potential for spillovers of knowledge to the local labor force, at the same time as the host country's level of human capital determines how much FDI it can attract and whether local firms are able to absorb the potential spillover benefits". (Blomstrom and Kokko 2003).

FDI introduces local Governments, local businesses and citizens to the new management techniques, business practices, economic concepts, and technology that will help them develop the

competitiveness of local businesses and industries. Empirical researches indicate that MNEs do more training to technical workers and managers than local firms do according to Görg et al., (2007). FDI is primarily a flow of technological and organizational know-how knowledge. FDI also brings access to information, the culture of advanced markets, market institutions.

Higher salary is another advantage that FDI brings along. MNEs have often been found to pay higher wages than domestic firms for similar job positions (Lipsey, 2002). If a new factory is created in a host country, it is obvious that labor force will be hired to perform daily activities. New working places will burst local market together with foreign money being pushed into the economy. The newly constructed object will hire local employees and will utilize some local materials and services. This will create even more jobs and new businesses. New businesses will create more new jobs, and local people will have more money to spend and local economy operate to the fullest.

Markusen (1990) stated that once a firm decides to invest in a country, it could act as a promotion to other potential investors reinforcing investment attractiveness, signaling about micro and macro-economic stability within the country and creating the country's competitiveness among neighboring countries. Snieska and Simkunaite (2009) explored the impact of infrastructure on countries development and found positive correlation between infrastructure and growth in the host country.

Most empirical studies conclude that FDI provide positive results and contribute to both factor productivity and income growth in host countries. However, FDI seems to have smaller effect in less developed economies. Developing countries must achieve a certain level of development of education, technology, infrastructure and health before being able to benefit from a foreign presence in their markets. Imperfect and underdeveloped financial markets, weak financial intermediation hits domestic enterprises much harder than it does multinational enterprises (MNEs) so the host country must be prepared before attracting the investments in order to benefit fully from them.

Table 4 provides the summary of scientific studies which have revealed positive impact of FDI on the host countries. The performed studies are collected within different time frame which shows that the question of the impact of FDI was raised quite long time ago. The selected cases are important since each contains different number of observed host countries in distinct geographical locations, where the countries have different level of economic development.

The cases are performed from different statistical perspective as distinct methods have measured not the same variables, however the outcome revealed to be the same, positive one.

Table 4. Positive impact of FDI

Author, year	Country and timeframe	The impact of FDI identified	FDI evaluation method	Variables examined
Anastassopoulos (2007)	15 EU Member-Countries 2003-2006	Increased competitiveness in Austria and Denmark.	Regression analysis, covariance analysis, heterogeneity tests.	Economic performance: GDP, current account balance. Governmental efficiency: total general government debt, corporate tax rate on profit, legal and regulatory framework, bureaucracy. Business efficiency: overall productivity, skilled labor, investment risk, attitudes toward globalization. Infrastructure: energy infrastructure.
Benacek et all, 2000	Central and Eastern Europe 1989-1998	Inflows of FDI have improved the overall growth potential of the economies.	Surveys, statistical analysis.	Labor costs in the host country relative to the investor country, labor costs in the host country relative to other potential host countries, GDP, skill level of the workforce, trade barriers, transaction costs or positive externalities of the country, countrywide risk and its exposure to an institutional failure, agglomeration affects, private ownership, degree of economies of scale, extent to which intangible assets are important within a given industry, capital intensity of production, special incentives.
Zhang, 2014	China 2005-2010	Increased industrial performance.	IC index to measure multidimensional industrial performance.	Assessment of 21 manufacturing sectors for 31 regions in six years.
Kinoshita, Y. and Campos, 2003	25 countries in transition 1990-1998	Positive impact on competitiveness and growth.	Regression analysis and estimation method.	Annual growth rate of GDP per capita, initial GDP per capita, enrollment ratio in primary education, government consumption as a percentage of GDP, population, FDI, percentage of domestic investment in GDP.
Balasubramanyam, 1996	46 developing countries 1970-1985	Increase competitiveness.	Statistical data analysis.	GDP, employment, exports, domestic and foreign capital stocks.
Krifa-Schneider, 2010	33 developing countries 1996-2008	Favorable business conditions are significantly and positively associated with FDI inflows.	Fixed effect model and a dynamic panel model using the Arellano-Bond GMM estimator.	FDI inflows in percentage of GDP for country, Gross national income per capita, Growth rate of GDP in percentage, Ratio of exports and imports to GDP, The GDP deflator.

Table 4. continues on the next page

Continuation of Table 4.

Author, year	Country and timeframe	The impact of FDI identified	FDI evaluation method	Variables examined
Roy and Van der Berg, 2006	The U.S. 1970-2001	Positive impact.	Growth equation, neoclassical production function.	GDP, FDI, domestic investment, exports, imports, existing human capital.
Nair-Reichert, Weinhold, 1999	24 developing countries from 1971 to 1995	Positive results differ among the countries.	Econometric analysis, causality test.	GDP, human capital, inflation, exports.
Iqbal et all, 2014	Pakistan 1983 to 2012	Positive impact to GDP and labor force development.	Descriptive statistics, correlation model.	GDP, FDI, Openness of trade.
Chen, Geiger and Fu, 2015	Rwanda and Ethiopia 2008-2014	Increased employment.	Statistical data overview.	Employment rate, GDP.

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Summing up the cases listed in Table 4, the conclusion can be drawn that in various countries within different time frame positive impact of FDI was identified measuring different variables through a wide range of statistical methods. Common benefit of FDI noticed within the countries was increased competitiveness and increased GDP.

2.3. The negative impact of FDI

Scientific literature discusses not only positive but also negative effects of FDI. The competition of MNEs with local producers on their product market is called competition effect. Some researchers have found evidence of crowding competition effect through which multinationals may force domestic firms to exit the market. As Markusen and Venables (1999) point out, the result comes from the high degree of similarity between local and multinational firms, and it is not easy to imagine circumstances which would permit to survive both counterparties.

According to numerous literatures (Lipsey 2002, Epstein, 1999, Han X.Vo, 2004), effort to attract investment by subsidies and tax breaks can lead to substantial reduction of government revenues but also a way of acquiring a certain control, both economical and political, in the host country. Major control taken over on strategic local assets through FDI can expose local country to the threat of security and independence. The government loss of tax payments, when the profits are repatriated to the investors' home country is another drawback of FDI. The lack of positive ties with local communities can potentially create a harmful environment especially in heavy industries, social disruptions in less developed countries, and the effects on competition in national markets. The summary of negative impact of FDI in scientific

literature is provided in Table 5.

Table 5. Negative impact of FDI

Author, year	Country and researched timeframe	The impact of FDI identified	FDI evaluation method	Variables examined
Han X. Vo, 2004	The US, 1980-1990	Negative effect if no appropriate conditions in the host country's economy.	Direct income effect by Euler's theorem.	Capital, management, labor, material input.
Epstein, 1999	Various cases	Host countries might become dependent on FDI, possible capital mobility.	Literature overview.	Overview of conducted studies.
Hisarciklilar et all, 2014	Turkey 2000-2007	Unemployment did not decrease.	Dynamic panel data analysis.	FDI, unemployment rate.
Figlio and Blonigen, 1999	The US (South Caroline) 1980-1995	Lower per capita government budgets.	Econometric analysis.	Wages, local budget, employment, manufacturing industry, annual wage, deflated by the consumer price index.
Lipsey, 2002	Various cases	Trade links reduce the freedom of action of a country's government domestically, the larger productivity gap, the smaller wage spillover.	Literature overview.	Wage, productivity spillovers.
Arbatli, 2011	46 countries, 1990 to 2009	Depends on the host country conditions.	Econometric analysis	Real GDP, Inflation, Export to GDP, Real exchange rate, education, political risk.
Markusen and Vernables, 1997	Single domestic economy	Sales of firms reduce due to competition effect and leads to exit.	Shephard's lemma, econometric analysis.	Domestic, foreign and multinational firms, price index, product differentiation, profit.

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Moreover, internationally operating enterprises can impact the loss of political sovereignty in host country and the dependence of local authorities on foreign investors. FDI can create a more monopolistic industry structure, depending on the strength and responses of the local firms. The benefits of FDI in such cases will not be significant, on the contrary, can prove to be elusive and the host economy in its current state of economic development will not able to take advantage of FDI. Summarizing Table 5 could be

concluded, that FDI will bring less beneficial or even negative impact on the economies with weaker initial conditions. Weak economies with less attractive conditions will experience smaller inflows of FDI, and those foreign firms are likely to use technologies which are less developed and contribute only marginally to the development of local labor force skills.

2.4. The investors' motives for FDI

FDI do not spread within the countries equally. The investor executes and evaluates certain factors according to which the decision is made where to direct FDI. "OLI paradigm" (Dunning 1988), comprises the framework of the most distinctive factors which influence the decision of investment: ownership (O), location (L) and internalization (I).

Labor costs are frequently considered to be among the key economic variables in the discussion of the determinants of investment location decisions of firms (Havlik, 2005). An attractive location is one factor which provides low costs compared to potential productivity (Porter, 2006). Locations with higher attractiveness should be able to grow more quickly than peer locations with similar competitiveness but higher factor costs. According to Blomstrom (2002), incentives received from governments influence FDI attraction. Over time, this can support prosperity growth if enables foundational competitiveness to improve as well. The scientific studies emphasize that FDI is attracted by the following factors: tax rates, market size, labor costs and the overall quality of investment climate within the host country according to Devereux and Griffith (1998), Wheeler and Mody (1992), Wang and Swain (1995), and Billington (1999). Wang and Swain (1995) state that FDI is determined by market size, capital costs, and political stability.

Lankes and Venables (1996) emphasize the importance of political and economic stability, as well as the level of perceived risk in attracting foreign investors. Lansbury et al. (1996) and Holland and Pain (1998) stress the openness of the economy and the prevalent labor costs which significantly more attract FDI, while Woodward et al. (2014) and Carstensen and Toubal (2003) emphasize the importance of market size and potential, tax incentives while attracting FDI. The development of liberalization, decrease restrictions of FDI, and the quality of the legal and bureaucratic environment are found to affect FDI in all the countries studied by Kinoshita and Campos (2003). Another factor that plays a key role in attracting FDI is the business climate.

Some authors including Lipsey (2002), Krugman and Obstfeld (1997) argue that a distinctive feature of FDI is that it involves not only a transfer of resources but also the acquisition of control. In some cases the extension of control is the essential purpose of incoming foreign capital. Firms tend to localize where other firms of the same industry are present. (Krugman 1999).

Case studies suggest that the absence of cohesion and stability in the host country greatly signal investors' risk perception and may raise concerns among foreign enterprises about possible damage to their reputations. Investors' motives for FDI are presented in Table 6.

Table 6. Investors motives for FDI

Author	Investors motives	Explanation
Dunning (1988)	Strategic ownership.	OLI paradigm.
Blomstrom (2002),	Profit driven.	Seeking incentives from Government.
Porter (2006), Krugman (1999)	Expansion, diversification.	Increase productivity through lower costs.
Kinoshita and Campos (2003), Wang and Swain (1995), Balasubramanyam *et al*, 1996, Carstensen and Toubal (2003)	Business friendly and political environment	Less bureaucracy, political stability.

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As shown in Table 6, the motives for transferring FDI to the host country differ among the investors. FDI often contributes to creating a more transparent environment. There are cases of foreign corporate presences encouraging more open government practices, raising corporate transparency and assisting in the fight against corruption. Human capital is not only an important determinant of economic growth and a potential beneficiary of spillovers from FDI, but also a crucial factor in attracting MNCs and facilitating spillovers. A number of studies have suggested that investment and growth in developing economies are positively associated with indicators of 'openness' (Balasubramanyam et al., 1996). Such findings may suggest that investors prefer countries with relatively liberal trade regimes and fewer constraints on profit repatriation.

The voice of investors was presented in European attractiveness survey conducted by EY 2014. The following answers express the opinions of foreign investors and their motives to choose Europe as foreign investment destination. The main aspects, which allow deciding where to locate foreign investment, are stability and transparency of political, legal and regulatory environment, 43% percent of respondents said. The size of the domestic market was ranked as the second most important factor for choosing investment location, 37% of respondents answered. Creativity, innovation and reduced input costs allow achieving productivity gains, 26% of respondents said. Stability and a predictable business

environment were indicated as the most attractive features in Europe, 44% of respondents indicated. Investors also said that Europe offers large market for investment (31% answered), and rich consumer market to meet investment requirements (20% answered). Respondents also indicated that European market is full of capacity for innovation (38% of respondents) and the quality of labor forces (31% of respondents) which ensures availability for companies to maximize their profit and ensures easy availability of technology.

Summing up, the phenomenon of FDI has been actively researched in various countries within different timeframes. The fluctuations of FDI worldwide force the economists and scientists to analyze the patterns and identify the reasons behind the actions. The necessity and desire for FDI becomes a target and goal where each competing country wants to be the first and the one who attracts the most foreign investment. Three major indices which rank the countries worldwide allow to distinguish the winners: The World Competitiveness Yearbook prepared by Institute for Management Development (IMD), Global Competitiveness Report issued by World Economic Forum (WEF) and Business Competitiveness Ease of Doing Business Report released by International Finance Corporation (IFC). Each country wants to be on the top of the lists in order to attract the most FDI and to increase competitiveness. The overview of scientific literature allows determining that there is a need of FDI for the investor and the host country. The investor is in search for the new opportunities to expand the business at maximum return with minimum costs. Whereas the host country, who is accepting FDI, looks for the opportunities to access the international markets, increase the economy and welfare of the country. However, the intentions from both parties not always bring the forecasted outcomes or results. The investment might not always bring back expected profit to the investor and might not help to boost the host country's economy and competitiveness.

3. METHODOLOGICAL PART OF THE ASSESSMENT OF THE IMPACT OF FDI ON THE COUNTRY'S COMPETITIVENESS

During the scientific literature overview the notion of competitiveness was identified as a complex definition and it turned out that the exact definition does not exist. The most accurate definition which will be applied to the thesis will be used by Navickas (2010), the competitiveness of the country is the ability to outperform the position among other countries when different aspects of the country are competitive.

The methodological part is comprised of the following four stages, see Fig. 9.

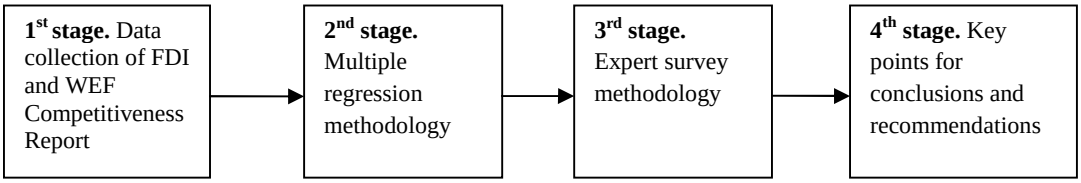


Fig. 9. Stages of methodological part

- The first stage – collection of data for empirical research. The collection of FDI yearly amount which arrived to Lithuania for the period of 2004 – 2014 using official statistics. The purpose of chosen period is to reflect the tendencies and trends in long time. The overview of Lithuania in WEF Competitiveness Report for the period of 2004 – 2014. The purpose is to overview the components of Competitiveness Report and the place of Lithuania in it within the researched timeframe.

- The second stage – is dedicated for the description of regression analysis which allows assessing the impact of the components of FDI on the place of Lithuania in WEF Competitiveness Report for the period of 2004 – 2014.

- The third stage – the purpose is to present methodology for expert survey. Created questionnaire will be distributed among experts, including the top management of investment projects or direct investors in two months from October to November, 2015. The analysis of expert opinion survey results covers the evaluation of the agreement among the respondents, reliability of the survey, the calculation of mean value which is the average evaluation for the factors which attracted the investment to Lithuania, investment impact on the competitiveness of Lithuania, disclosure of any negative experience and the proposal of suggestions how to attract more FDI to Lithuania.

- The fourth stage – the last part is dedicated for the clarifications how to present the summary of

empirical research and to create a model which would help to attract more FDI.

The goal of the methodological part is to present and overview the methods and ways how to assess the impact of FDI on Lithuania's competitiveness through the interaction of the ***factors*** which attract FDI to Lithuania and as an outcome the creation of the model how to attract more FDI to Lithuania.

The limitations of the research. The most important indicators which show the competitiveness of the country are economic indicators however the use of correlation analysis with economic indicators was rejected due to non sufficient and statistically non significant results. Therefore the competitiveness of Lithuania will be assessed using the components of FDI and the place of Lithuania in WEF Global Competitiveness Index through multiple regression analysis. In order to identify the factors which attract foreign investors to Lithuania, the qualitative research expert survey will be used.

In order to achieve the goal of the research, the following ***assignments*** are set.

1. To assess the impact FDI on the place of Lithuania in WEF Global Competitiveness Report for the period of 2004 – 2014 using multiple regression analysis.

2. To assess the impact of FDI on the competitiveness of Lithuania using expert survey evaluation.

3. To produce the assessment results of empirical research of the impact of FDI on the competitiveness of Lithuania and suggestions how to attract more FDI to Lithuania.

The researched hypothesis is formulated: FDI positively impacts the competitiveness of Lithuania.

3.1. The statistical dynamics of FDI and WEF Competitiveness Report

The FDI statistics in Lithuania is collected for the period of 2004 – 2014. The source for gathered statistics is the data from the Bank of Lithuania, Department of Statistics of Lithuania and Invest Lithuania, investment promotion agency. The purpose of chosen period is to reflect the tendencies and trends in long time. The selected sources of information for the statistics are in order to present the most accurate and official information. Another part dedicated for gathering statistics is the place of Lithuania in the WEF Competitiveness Report for the same period 2004 – 2014. Competitiveness in WEF GCI is defined as a cluster of policies, institutions and factors which identify the level of productivity. This index was chosen for the empirical research because it denotes the most complete measurement of the country's competitiveness covering 12 different pillars. The composition of WEF GCI is indicated in ANNEX 1.

12 pillars covered in WEF GCI capture different aspects of country's competitiveness and are appointed with different percentage weight. WEF GCI is comprised of three sections with different percentage weight: Basic requirements score 20-60% of index, Efficiency Enhancers totaling 35-50% of index, and lastly Innovation and Sophistication factors accumulate 5-30% of index. The components of the index are subdivided into smaller groups which also are given the percentage, see detailed list in ANNEX 1. The institutions play an important role on growth and competitiveness of nations, influencing investment decisions, distributing the benefits and costs within the society. Infrastructure networks make a huge impact on the economic growth and balances income inequality.

Overall competitiveness of the country can be expressed through stable macroeconomic environment. A robust, flexible and intelligent labor force is essential for a productive and competitive country. The effective production of goods and services is the key aspect of efficient markets. Local and foreign resources are allocated for the most productive use through efficient financial sector. Sophisticated business practices and trade openness are vital factors in the competitiveness of the countries. Standards of living can be advanced with the help of technological innovation which in the long run can be very rewarding.

3.2. Methodology for Multiple Regression

In the theory of statistics, regression is denoted as the measurement of the dependence between the variables, linear and non-linear relationship, according to Martisius (2014). Multiple regression is performed when the number of tested independent variables is more than one. As Martisius (2014) acknowledges, multiple regression is not deeply described and widely used in scientific studies. This was the reason why multiple regression was chosen for the calculations of empirical research in order to contribute to the practical appliance of this analysis and to verify if multiple regression analysis can provide reasonable outcomes. The following equation will be used for multiple regression:

$$Y = a_{0\,(constant)} + a_1 X_1 + a_2 X_2 + a_3 X_3 \qquad (1)$$

The analyzed variables will be named in the research further as:

Y – Competitiveness Index, dependent variable

X_1, X_2 and X_3 are the components of FDI, independent variables

X_1 – Equity, independent variable

X_2 – Reinvestment, independent variable

X_3 – Debt Instruments, independent variable

The methodology for multiple regression analysis of FDI components and the place of Lithuania in the Competitiveness Index is presented in the following part. The aim of the research is to identify the links between the FDI components and yearly rank for the competitiveness of Lithuania within the period of 2004 – 2014. The decision to analyze the components of FDI which are Equity, Reinvestment and Debt Instruments and the link between the positions of Lithuania in WEF GCI using multiple regression analysis was made in order to broaden and deepen the spectrum of the research and to construct the analysis from the innovative perspective.

The statistical data used for calculations was chosen from the Bank of Lithuania database. The sample chosen is 10 years, data used from 2004 to 2014. Maximum available timeframe was chosen in order to observe the dynamics and trends and evaluate the impact and relationship of FDI on the place of Lithuania in the Competitiveness Index. The longer timeframe chosen for the analysis, the more precise relationships and their strength can be identified between the variables.

P value for each independent variable will be calculated. If p value = > 0.05, the result is statistically not significant and should be removed from the model. According to Krzanowski (2007), R square (R^2) is determination coefficient which explains how well the data fits the statistical model. R^2 closer to 1 indicates that regression line perfectly fits the data, while if R^2 is closer to 0, it means that the line does not fit the data. Regression analysis will determine the validity of relationships between the variables. The regression results show whether the relationship is valid and how the components of FDI impact the place of Lithuania in WEF GCI.

3.3. Methodology for Expert survey

Statistical data analysis cannot ensure the full coverage of the topic therefore one more method, expert opinion survey was included to the research. The results of experts' questionnaire complemented to the assessment of FDI on Lithuania's competitiveness. The expert survey using individual questionnaire was presented to experts in order to disclose their opinions and identify the factors which attracted the investment to Lithuania and as an outcome to determine the framework how to attract more FDI to Lithuania.

The expert is a person who has certain experience and knowledge. One common criterion was applied while selecting the group of experts. The experts had to be able to resolve the raised problem in an

effective and reliable way (Rudzkiene et al., 2009). The main requirements for the experts were competence and experience in the researched area. Rudzkiene et al. (2009) provide the relationship between the number of experts and the trustworthiness of the results, see Fig. 10.

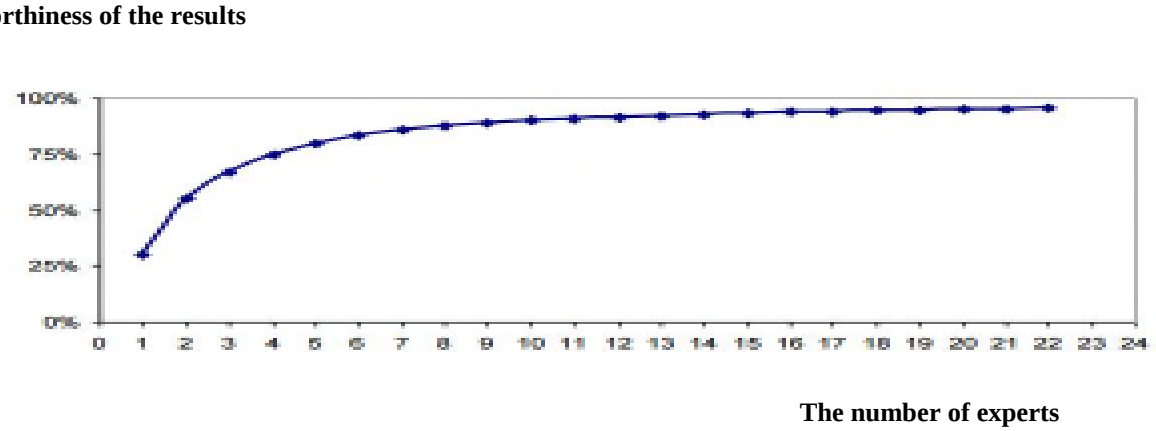


Fig.10. The number of experts and trustworthiness of the results, Rudzkiene et al. (2009)

In order to receive accurate and precise evaluation from the experts, the estimated number of selected experts has to be methodologically correct. The area of the research is FDI in Lithuania therefore the respondents of the survey were selected based on the investment origin countries and size of the project in order to make the research more complete and to provide with different point of views of the investors. The top leaders of the established companies through foreign direct investment were chosen for survey. Their qualification, experience, expertise and knowledge allow qualifying them as experts. According to Rudzkiene et al. (2009, p 202), starting with the number of experts from 9 to 10 and up, the trustworthiness of experts' evaluation is growing not so significantly, see Fig. 10.

Rudzkiene et al. (2009) recommends that the optimum number of experts is 10 therefore the decision was made to receive at least 10 completed questionnaires from the top leaders of established companies in Lithuania through FDI.

The structure of the expert survey. The expert survey was conducted in two months, October and November, 2015 by distributing the questionnaires to the experts via electronic email or scheduling a phone call and filling in the questionnaires life. The questionnaire was composed of five parts based on the results of scientific literature review. The questions were closed ended and the answers were set in Likert Scale. The respondents had to rate the importance of the factors in the scale from 1 which means strongly disagree or least important, to 5 which means strongly agree or very important.

The first part of the expert survey was dedicated to the origin country and the name of FDI project in Lithuania. The second and third parts were dedicated to the core questions of the research allowing

identifying the factors which attract FDI to Lithuania and how FDI impacted the competitiveness of Lithuania. The forth part was devoted to find out if the respondents have undergone through any negative experience. And the last part was composed for future improvements in order to attract more FDI to Lithuania. The chosen structure of questionnaire brought the clarity to the essence of the researched topic and answers of the experts allowed easier to analyze and summarize the results.

The evaluation of expert survey results. The evaluation of expert survey results is based on the assumption that the answers will be anonymous among the experts. Therefore, assessing the agreement among the experts Kendall's coefficient of concordance will be used. Kendall's W ranges from 0 to 1 ($0 < W < 1$), where 0 means no agreement and 1 means complete agreement (Rudzkiene, et al., 2009). When Kendall's W is bigger than 0,6, the experts' opinion is said to be in moderate accordance (Pukenas, 2009). Cronbach's alpha coefficient is used to assess the internal consistency reliability of questionnaire scores with the following means:

$\alpha \geq 0.9$ – excellent;

$0.9 > \alpha \geq 0.8$ – good;

$0.8 > \alpha \geq 0.7$ – acceptable;

$0.7 > \alpha \geq 0.6$ – questionable;

$0.6 > \alpha \geq 0.5$ – poor;

$0.5 > \alpha$ – unacceptable.

The data of expert survey results are processed and analyzed using SPSS (Statistical Package for the Social Sciences), software package used for statistical analysis where average means of answers, Kendall's W and Cronbach's alpha were calculated. MS Excel was used for graphical analysis of data.

3.4. The key points for conclusions and recommendations

The last part resumes the essence of the research. The purpose of this part is to draw the conclusions from the analysis of gathered statistical data of FDI and WEF GCI for the period of 2004 – 2014, to summarize the results of multiple regression analysis and the expert survey results. The recommendations how to attract more FDI to Lithuania are pointed out and the framework of actions is presented.

It is very important to provide useful and implementable recommendations how to attract more

FDI to Lithuania in order to increase the competitiveness of the country. The factors which are least interesting for foreign investors will be pointed out. The recommendations how to attract more FDI to the country will be generated and systemized based on the expert survey results and factors which are the most attractive for the present foreign investors in Lithuania.

Empirical research is conducted in order to get the evidence of researched phenomenon and to confirm or reject the hypothesis stated. The researched phenomenon is the impact of FDI on the competitiveness of Lithuania. The hypothesis states, that FDI impacts positively the competitiveness of Lithuania. Summarising the methodlogical part it could be concluded that all empirical research will be done according these stages, see Table 7.

Table 7. The stages of empirical research

Stage	Title	Goal
1.	The overview of FDI in Lithuania and WEF GCI	To overview FDI dynamics during 2004-2014 period and present the place of Lithuania in Competitiveness Index.
2.	The assessment of FDI impact on the competitiveness of Lithuania through multiple regression.	To evaluate the Impact of FDI on the competitiveness of Lithuania within the Competitiveness Index using quantitative method multiple regression analysis.
3.	The determination of factors which attract the most or the least FDI to Lithuania through expert survey.	To define the factors which are the most and the least important while attracting FDI to Lithuania based on qualitative method results of expert survey analysis.
4.	Conclusions and recommendations of empirical research.	To provide conclusions and recommendations how to attract more FDI to Lithuania based on the quantitative and qualitative research results.

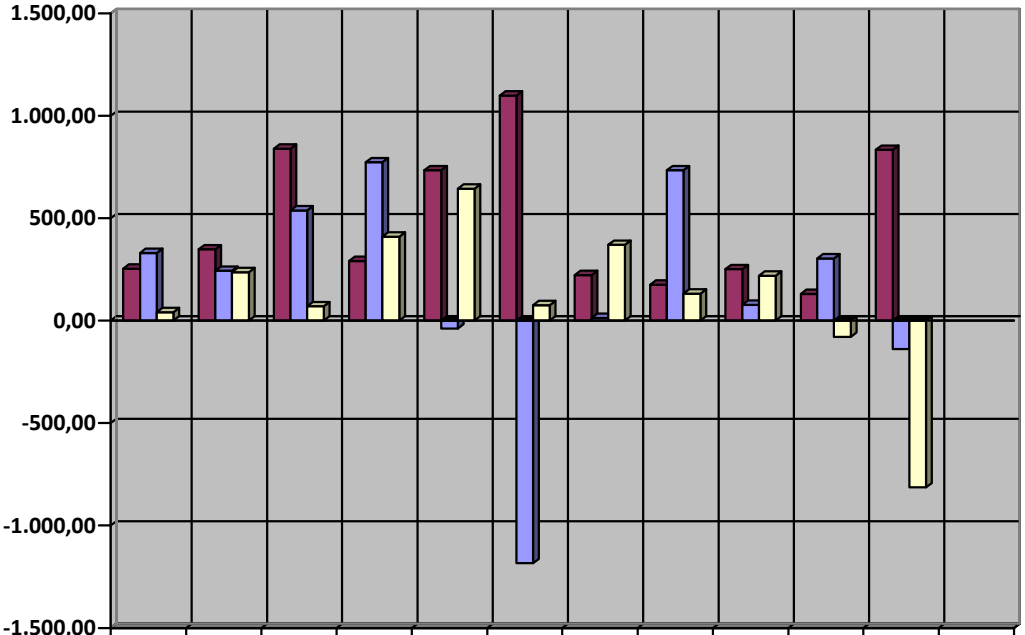
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As seen in Table 7, the empirical research is comprised of four stages. The first part is dedicated for the overview of collected statistics. The second part is devoted for the regression analysis results, followed by the third part which presents expert survey results. And the last stage presents the conclusions and the recommendations of the empirical research.

4. EMPIRICAL PART OF THE ASSESSMENT OF THE IMPACT OF FDI ON LITHUANIA'S COMPETITIVENESS

4.1. The overview of FDI in Lithuania and WEF GCI

Lithuania has received a substantial amount of FDI flows during the past years within the period of 2004 – 2014, according to the Bank of Lithuania statistics. The summary of FDI flows is presented further in detail in Fig. 11.



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Equity, mln EUR	253,32	347,11	840,19	290,75	734,84	1.098,7	221,35	174,65	250,27	129,69	834,49
Reinvestment, mln EUR	329,33	243,04	538,7	773,4	-38,68	-1.183,	12,73	734,41	76,37	303,29	-138,5
Debt Instruments, mln EUR	40,42	235,84	69,3	408,67	644,94	75,2	369,48	131,45	218,17	-79,7	-814,1

Source: The Bank of Lithuania, 2015

Fig. 11. The dynamics of FDI in Lithuania during the period 2004-2014

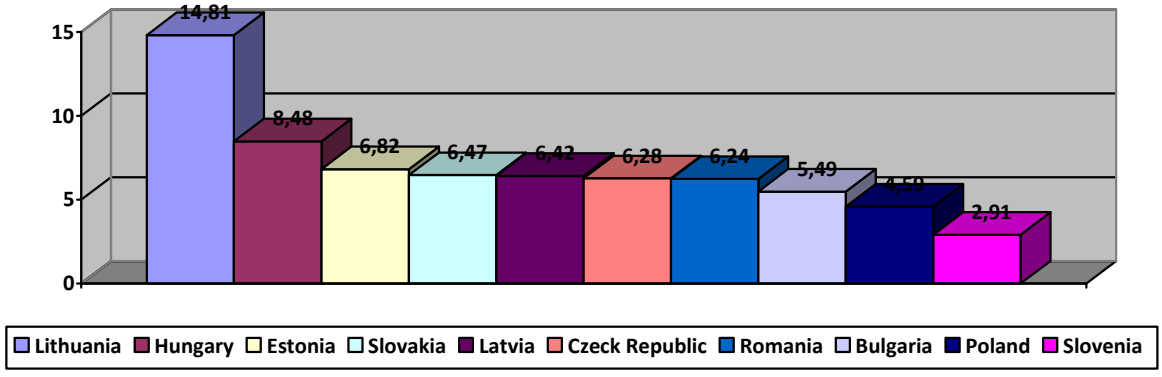
FDI flows consist of Equity instruments, Reinvestment, Debt instruments. FDI to Lithuania within the period of 2004-2014 has been fluctuating. According to Bank of Lithuania, Equity instruments are comprised of equity securities, investment fund shares, reserves, included in equity capital. Reinvestment means the share of a direct investor's profit, which the subsidiary or partner companies did not distribute as dividends and the profit that has not been transferred to the direct investor. Debt instruments are

financial instruments which are required in the future to repay the principal amount and/or pay interest. They include loans, debt securities, commercial credit and advance payments. The law about investment in Lithuania, which was introduced in 1999, describes the reinvestment as the profit which is accumulated from the investment in a certain object which could be used to generate additional profit.

In the year of 2004 and 2005 Lithuania has not been very popular among foreign investors since the least FDI amount seen for the researched period, see Fig. 11. However the year of 2004 was a very important to Lithuania because Lithuania became a member of NATO (North Atlantic Treaty Organization) and European Union. These memberships allowed informing the world about stable economy, political and social environment and inviting potential investors for new business opportunities. The FDI increased in 2006 to Lithuania. This increase was due to PKN Orlean deal which acquired 30% equity of Mazeikiu Nafta, as a result Poland became one of the biggest investors in Lithuania.

The decrease of FDI in 2009 can be explained due to global financial crises which impacted Lithuania as well. In 2009 Vilnius was announced the capital of culture and this fact allowed for Lithuania to be more visible and present the country to a broader audience. As a result of this event, a new flow of FDI arrived to Lithuania in 2010. After the recession a new high of FDI in Lithuania can be seen in 2011 due to increased reinvestment too. In 2013 Lithuania assumed the presidency of European Council of the European Union which was another great opportunity to let the potential business partners to get to know about Lithuania. As a result of this fact, in 2014, a number of well known brands worldwide have entered the market in Lithuania. To sum up, the opportunities and events in political life, important decisions at the national level, memberships in important organizations have helped Lithuania to become more known worldwide and to attract foreign investment to the country.

Lithuania is the leader in the investment projects for 1 million inhabitants, see Fig. 12.



Source: Invest in Lithuania, 2015

Fig. 12. The number of FDI project for 1 million inhabitants in units, 2014

As seen in Fig. 12, the countries with least population have least planned work places. According to the statistics in Fig. 12, Lithuania has attracted 14.81 projects for 1 million inhabitants. This result is above the average in Central and Easter Europe region (CEE), which is 5.99 per 1 million inhabitants. Few names who have been attracted by Lithuania and established their branches within researched period are: Biotechpharma (2004), Citco (2007), SEB (2008), Barclays (2009), WU (2010), Thermo Fisher (2010), Danske Bank (2012), Kinze (2013), Lindorff (2014), Ahlstrom (2014). The variety of origin countries and functioning areas describe the colorful landscape of FDI in Lithuania.

Summary of FDI in Lithuania during the period of 2004-2014 by top 5 investing countries which brought the biggest amount of FDI are presented in detail bellow, see Table 8.

Table 8. Most active investors in Lithuania within 2004-2014

Year/Country					
2004	Norway	Russia	Sweden	Germany	The UK
2005	Russia	Finland	Austria	Malta	Latvia
2006	Luxembourg	The UK	Poland	Russia	The US
2007	Latvia	The Netherlands	Russia	Poland	Germany
2008	Sweden	Estonia	Germany	Switzerland	Denmark
2009	Poland	Norway	Germany	France	St Kitts and Nevis
2010	Malta	France	Finland	Germany	Russia
2011	Sweden	Finland	The UK	Poland	Estonia
2012	Russia	Sweden	Germany	Poland	Estonia
2013	Netherlands	France	Sweden	Austria	Estonia
2014	the US	Sweden	Norway	The UK	Finland

Source: Lithuanian Department of Statistics, Invest Lithuania, 2015

To sum up, the most active and repetitive investors who bring FDI from year to year to Lithuania are neighboring countries such as Baltic and Nordic countries and Russia, as noticed from Table 8. This shows that neighbors know Lithuania well, maintain similar cultural and business traditions, have resembling geographical environment and believe in business opportunities here. Less FDI was attracted from more distant countries in terms of geographical location. As noted from the list above, investors from Asia, or South America could be a potential target while trying to attract new businesses to Lithuania, as the investors from named continents are not among the most active in Lithuania. All in all, the overall spectrum of investors is quite dynamic and some of the investing countries keep coming back to Lithuania. Therefore Lithuania should try to retain the present investors who have already established the

business here and actively search for new financial relationship opportunities.

Table 9 lists top five FDI in Lithuania. The sections in table present the investor name, country of origin, local company name, industry sector and the size of capital invested.

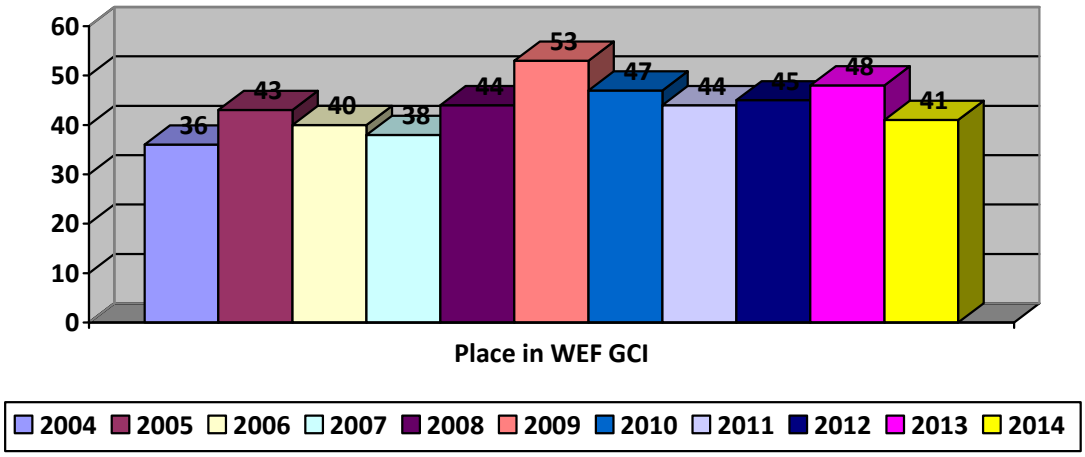
Table 9. Top foreign investors in Lithuania

Investor	**Country of origin**	**Local company name**	**Industry sector**	**Capital investment (EUR million)**
Gasprom	Russia	Lietuvos dujos	Fuel and power industry	390.5
Orlen	Poland	Orlen Lietuva	Fuel and power industry	281.6
Thermo Fisher Scientific	Canada	Fermentas	Molecular biology	202.7
Kesko	Finland	Rimi Lietuva	Retail, food store chain	196.5
Adax	Norway	Adax	Networking and communication devices	196.5

Source: Invest Lithuania, 2015

As seen in Table 9, the biggest foreign investor in Lithuania according to capital invested, called Gasprom, originates from Russia. The fact, that foreign investor from Russia invested in one of the strategic objects in Lithuania, can raise the suspension or doubts about the possible intention to dominate the market, create monopoly and make strategic impact on Lithuania's independence. Other top four foreign investors are from neighboring countries such as Poland, Finland and Norway, and from Canada. To sum up, Lithuania has been rewarded with the substantial amount FDI for the period of 2004-2014 from different investors, diverse countries investing in a number of spheres.

Lithuania in GCI has been moderately shifting during 2004-2014, see Fig. 13. The place in GCI is explained as the following, the closer number to 1, means the better performance of the country, the bigger the number of the place means the country takes the worse ranking in GCI. In 2004, Lithuania reached the highest position, 36th during all the researched period. In 2014, Lithuania was ranked as 41st country according to the competitiveness among 144 countries ranked. This fact means that the position of Lithuania in competitiveness has shifted to slightly negative part taking into consideration researched timeframe.



Source: WEF GCI, 2015

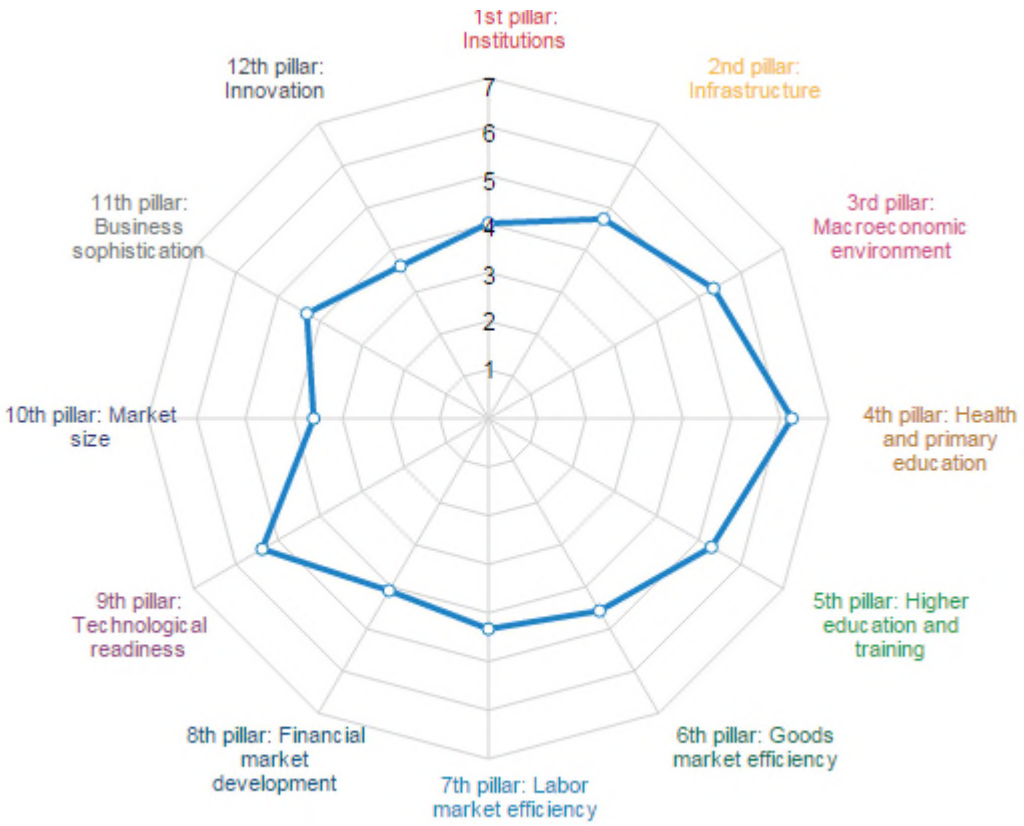
Fig. 13. The dynamics of Lithuania in WEF GCI 2004-2014

As seen from the Fig. 13, ten year period reflecting the change of places in GCI for Lithuania can be divided into three phases: pre-crises, post-crises and recent year. Lithuania managed to reach the highest position, 36th place in WEF GCI in 2004. This achievement can be justified due to eligibility to join NATO and EU the same year. Lithuania satisfied the membership requirements for the named important international organizations and these achievements helped to get such a high rank in GCI in 2004. During the pre-crises period, 2004-2007, Lithuania managed to remain more or less within the same position in CGI shifting up or down in GCI not very significantly. The amount of FDI in 2004-2007 was moderately significant taking into consideration the researched period of ten years, which also contributed to the rank in GCI. The most significant increase for the pre-crises period is noted for one of the components of FDI, namely reinvestments, which contributed to the competitiveness of Lithuania.

The lowest place, 53rd, in GCI Lithuania was ranked in 2009 when least FDI reached the country. In the year of 2008, the amount of reinvestments, component of FDI, have dropped significantly. As a consequence, Lithuania was given the lowest rank in GCI within the whole researched period. Post-crises period has been challenging for Lithuania, as for the whole world too. The amount of FDI, reaching the country decreased and Lithuania had to concentrate on the improvement of country's image worldwide. And Lithuania achieved the goal. Vilnius became the culture capital in 2009, as a result FDI increased in 2010, and Lithuania was ranked as 44th in 2011, as a result of increased FDI.

After 10 years of evolution, development and improvement of overall situation in the country, to be ranked as 41st among 144 countries in 2014 according to GCI, is fortunate, see Fig. 14. All twelve

pillars of the country are assed in the scale of 1-7 where 7 is the best.



Source: WEF GCI, 2015

Fig. 14. Lithuania's place in GCI in 2014

The ranking of Lithuania in GCI is not the worst in recent years, 2014. The ranking is quite satisfactory taking into consideration that Lithuania is described as transition economy from efficiency driven to innovation driven together with other 24 countries. The same economy description is given to Latvia too, however Estonia is ahead of mentioned two countries and is described as innovation driven economy together with other 37 economies.

The best evaluation for Lithuania was assigned to Health and Primary education (6.2 out of 7 where 7 is the best) as well as to Technological readiness in Lithuania (5.4 out of 7 where 7 is the best), see Fig. 14.

The Table 10 bellow presents the evaluation of Lithuania in 2014 in detail in GCI. Three major parts compose GCI, namely Basic requirements 22.5 %, Efficiency enhancers 50.0 % and Innovation and sophistication (27.5%), subdivided by twelve pillars. Since to the part of Efficiency enhancers were given the

biggest percentage part in the whole composition of examined aspects, a good practice for Lithuania would be focus on the strengthening and enhancing of this subgroup indicators.

Table 10. Rank for Lithuania in GCI in 2014

Lithuania, GCI rank in 2014	**41 out of 144 countries**	**Score 4.5 out of 7 (the best)**
Basic requirements 22.5 %	37	5.1
Institutions	58	4.0
Infrastructure	43	4.7
Macroeconomic environment	42	5.3
Health and primary education	35	6.2
Efficiency enhancers 50.0 %	38	4.5
Higher education and training	26	5.3
Goods market efficiency	47	4.6
Labor market efficiency	53	4.3
Financial market development	65	4.1
Technological readiness	28	5.4
Market size	77	3.6
Innovation and sophistication (27.5%)	44	4.0
Business sophistication	49	4.3
Innovation	44	3.6

Source: GCI, 2015

As seen from Table 10, the most painful areas, where Lithuania was ranked the lowest in CGI are institutions, goods market efficiency, financial market efficiency. Those areas will be addresses for improvement in conclusions and recommendations part.

To sum up, the competitiveness as a phenomenon is complex, affected by multiple constituents and the elaboration and observation of it might not be simple and easy in a short period, therefore the improvement, the changes or the increase of the competitiveness within the country is seen within longer period, as noticed from the rankings of Lithuania in GCI.

4.2. The assessment of FDI impact through multiple regression

In this part the results of multiple regression are provided and interpreted. The assessment of the impact of FDI components on the place of Lithuania in GCI was researched with the help of multiple

regression. Multiple regression analysis was chosen because of more than one independent variable tested. The following variables were assessed using multiple regression analysis: Y – place of Lithuania in Competitiveness Index, dependent variable, and three components of FDI as independent variables, X_1 – Equity, X_2 – Reinvestment and X_3 – Debt Instruments, see Table 11.

Table 11. Multiple regression results

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,768(a)	0,590	0,415	3,67434

a. Predictors: (Constant), Debt Instruments, Reinvestment, Equity

	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
(Constant)	47,020	2,806		16,760	0,000
Equity	-0,005	0,005	-0,361	-1,105	0,306
Reinvestment	-0,009	0,003	-0,953	-2,976	0,021
Debt Instruments	0,002	0,003	0,144	0,576	0,583

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	136,222	3	45,407	3,363	,084(a)
	Residual	94,505	7	13,501		
	Total	230,727	10			

a. Predictors: (Constant), Debt Instruments, Reinvestment, Equity

b. Dependent Variable: Competitiveness Index place

As results of R^2 show from Table 11, almost 59% of variable Y (Competitiveness Index) dispersion around its mean part can be explained by linear regression, however testing the hypothesis about regression model non-linearity, the result of p value is $p = 0.084 > 0.05$, that is why the conclusion can be drawn that the model is not linear.

The equation for multiple regression used is the following:

$$Y = a_{0\,(constant)} + a_1 X_1 + a_2 X_2 + a_3 X_3 \qquad (1)$$

$$Y = 47.020 + \sout{(-0.005*X_1)} + (-0.009*X_2) + \sout{(0.002*X_3)}$$

The results from Table 12 show that for X_1 Equity, $a_1 = -0.005$, calculated p value is $0.306 > 0.05$ and for X_3 Debt Instruments, $a_3 = 0.002$, calculated p value is $0.583 > 0.05$ which means that these variables should not be included to the model.

However, for X_2 Reinvestment, $a_2 = -0.009$, calculated p value is $0.021 < 0.05$ which means that this variable is statistically correct, statistically differs from zero and should be included into further model testing.

Calculated p value for X_2 - reinvestment shows that only one component of FDI, reinvestment, makes an impact on the place of Lithuania in Competitiveness Index, therefore only X_2 – Reinvestment

should be processed for further linear regression model testing, see Table 12. X1 – Equity and X3 – Debt instruments should be crossed out of the model and not used for further testing.

Table 12. Model summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,693(a)	0,481	0,423	3,64978

a. Predictors: (Constant), Reinvestment

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	110,905	1	110,905	8,330	,018(a)
	Residual	119,823	9	13,314		
	Total	230,727	10			

a. Predictors: (Constant), Reinvestment

b. Dependent Variable: Competitiveness Index, place

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	44,478	1,147		38,790	0,000
	Reinvestment	-0,006	0,002	-0,693	-2,886	0,018

a. Dependent Variable: Competitiveness Index, place

R^2 for tested variable X_2 – reinvestment is 0.481 ~ 0.50 which means that reinvestment makes almost 50 % impact on the place of Lithuania in Competitiveness Index, as shown in Table 12. The hypothesis about the non-linearity of model is rejected because p value is $p = 0.018 < 0.05$ therefore the conclusion can be drawn that the model is linear therefore the following equation will be used:

$$Y = a_{0\,(constant)} + a_2 X_2 \qquad (2)$$

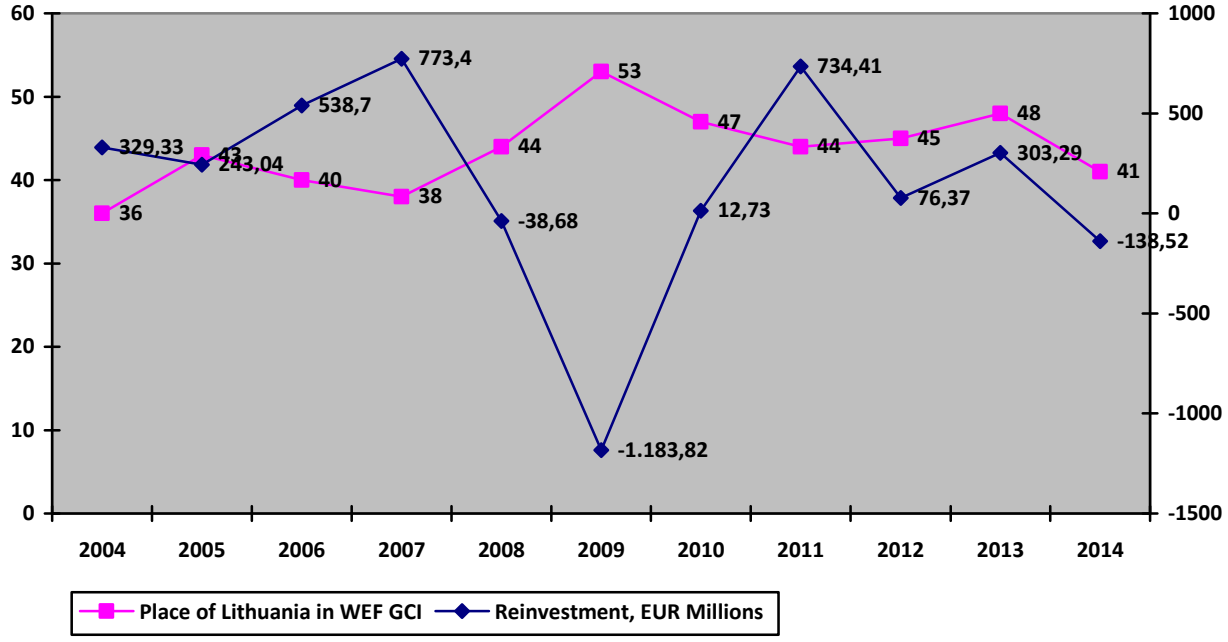
$$Y = 44{,}478 + (-0.006 * X_2)$$

The research of model results significance showed that both coefficients (constant and reinvestment) are statistically significant because p values are $p = 0.000$ and $0.018 < 0.05$ accordingly.

Fig. 15 provides the statistical evidence between the amount of reinvestment and the place of Lithuania in GCI. As the amount of reinvestment increased, Lithuania was ranked better (the higher up on GCI list), as the amount of reinvestment decreased, Lithuania was ranked worse (the lower down on GCI list). The exception is seen in 2013 where the amount of reinvestment increased but the place in GCI decreased. This can be explained by tense political atmosphere, export sanctions implemented by Russia during this year.

In 2014, the amount of reinvestment decreased, however Lithuania went up the list in GCI rating. This can be explained Lithuania has made a decision in 2014 to adopt Euro in 2015. This fact contributed to the increase of the competitiveness of Lithuania since common currency will become one more aspect

which will be attractive for foreign investors.



Source: Bank of Lithuania and WEF GCI, 2015

Fig. 15. Reinvestment and GCI for Lithuania

As a conclusion from Fig. 15, can be noted, that one component of FDI, reinvestment, makes the impact on the place of Lithuania in WEF GCI. As the amount of reinvestment decrease, Lithuania gets downgraded in WEF GCI and as the amount of reinvestment increase, Lithuania gets upgraded accordingly. However exemptions are noticed within recent years.

Tested validity of linear model for reinvestment proved to be statistically significant, $p = 0.018 < 0.05$ as shown in Table 13. The conclusion from multiple regression can be drawn that only reinvestment among three components of FDI makes the impact on the place of Lithuania in Competitiveness Index, therefore Lithuania should concentrate on the ways how to attract this part of the FDI the most.

4.3. The determination of factors which attract/do not attract FDI through expert survey

The survey was performed among experts, including the top management of investment projects and direct investors. The survey and the answers were distributed and collected in two months from October to November, 2015. Expert survey was conducted in order to identify the factors which attract or do not attract FDI to Lithuania based on real life examples, to find out the impact of FDI on the competitiveness of Lithuania, to disclose any negative experience related with foreign investment and

finally provide with the suggestions how to attract more FDI to Lithuania. The questionnaire was composed of five parts, see ANNEX 2. The total number of expert survey participants was 11. The recommendation for expert survey is to get 10 respondents therefore the number of the experts who have participated, exceed the recommendations.

The respondents were chosen according to their title and position within foreign establishment, the aim was to contact the directors and top leaders of the companies because they were the subject matter experts and were able to answer the expert survey questions the best based on their experience, knowledge and expertise within the particular company.

The limitations of expert survey. It was very difficult to get in touch with the directors and the top leaders of foreign capital establishments in Lithuania. The top management are always busy and have tight working schedule, therefore getting in touch with them was really challenging. Within two months more than 70 the most famous foreign capital establishments in the entire world who have their branches in Lithuania were contacted by e-mail or phone. Two forms of the contacts (e-mail and phone number) for the top managers of foreign capital branches were searched in available internet databases. However, it has been noticed that the bigger the player is, the more known the brand is, the less willing to answer the questionnaire is and the less willing to get into contact at all. No reply was received from the respondents to the majority of the e-mails sent, some respondents answered that they would not provide such information. The majority of the phone calls resulted in the reply that the director is busy or is out of the country and cannot pick up the phone. Possible justification for such behavior is the strict confidential rules and security standards set for such companies.

The significance of this research is the possibility to present to wide audience the facts, numbers and figures which are not easily available for the public even though the topic of the research is actual and widely discussed among various layers of the society. Once the contact was established, the conversation was performed in three languages: English, Italian and Lithuanian. The expert survey was completed in two different ways: by e-mail or on the phone in order to respect the experts' tight time schedule, perform quick and efficient survey and to make the experts feel comfortable.

In order to estimate reliability of the survey, Cronbach's Alpha needs to be calculated. Required result should be at least 0.70 or higher in order to have acceptable results.

The result of Cronbach's Alpha for expert survey calculated is 0.783 which shows a credibility of the survey and acceptable internal consistency of the questions.

Kendal's W coefficient of concordance was used to assess the agreement between the respondents. The closer the result to 1, means the respondents were unanimous. Kendal's W is statistically significant

when p = < 0.05. Kendal's W coefficient was calculated for each different group of questions, see Table 13.

Table 13. Kendal's W for each questions group

Factors	Kendall's W	P value	Observation
Workforce factors	0,178	0.004 < 0.05	Experts' opinions were different, however statistically reliable
Cultural factors	0,326	0.006 < 0.05	Experts' opinions were moderately similar and statistically reliable
Infrastructure factors	0.008	0.003 < 0.05	Experts' opinions were different, however statistically reliable
Economic factors	0.434	0.001 < 0.05	Experts' opinions were moderately similar and statistically reliable
Business environment	0,142	0.002 < 0.05	Experts' opinions were different, however statistically reliable
Competitiveness levels	0,184	0.003 < 0.05	Experts' opinions were different, however statistically reliable
Suggestion for FDI attraction	0.231	0.005 < 0.05	Experts' opinions were different, however statistically reliable

Expert opinions were quite different for each group of questions, as Kendall's W coefficient of concordance reveals. Different opinions can be expressed due to distinct background of the foreign investors, diverse origin country, multiple investment areas and overall different expectations and needs set by the foreign investors. However, the experts were the most unanimous answering the questions about economic and cultural factors in Lithuania, as seen from Table 13. Concluding, can be noted, that those categories are commonly regarded among multinational investors.

The first part of the questionnaire provided basic information about the investment, origin country and the name of the investment. The aim of the research was to get in touch with the directors of as more diverse investments in terms of origin country and the services provided as possible in order to portray the more comprehensive picture of the investment landscape in Lithuania.

Table 14, represents the diversity of foreign investors in Lithuania who have completed the expert survey. The results show that Lithuania is treated as the most credible destination for FDI from the European countries the most however none of the participated current investors are from South America, Africa and Australia, therefore these potential new investor locations could be taken into consideration

while trying to attract more FDI to Lithuania.

Table 14. Origin countries of FDI in Lithuania

Countries	Frequency	Percent
Belgium	1	9,1
China	1	9,1
India	1	9,1
Ireland	1	9,1
Israel	1	9,1
Italy	1	9,1
Lebanon	1	9,1
Norway	1	9,1
Russia	1	9,1
The U.S.	2	18,2
Total	11	100

As seen from the Table 14, eleven experts from 10 different countries replied to the survey such as Belgium, China, India, Ireland, Israel, Italy, Lebanon, Norway, Russia, the U.S. Two experts answered from the U.S. and this represent the huge size of the country's market and significant number of established companies in Lithuania. As results show, Lithuania could potentially focus in attracting more foreign investors from other more distinct geographical locations, such as South America.

In order to identify the most important factors which attracted FDI to Lithuania, experts were asked to evaluate them in a scale from 1 – which is not important to 5 – which is very important. The analysis of the results was performed the following: factors which accumulated the ranking 2.5 and less, were treated as not important; factors which accumulated 2.5 – 3.5, were treated as moderately important; factors which totaled to 3.5 – 4.5, were treated as important, factors which accrued 4.5 and more, were treated as very important. The dotted line in the following figures is drawn at 3.5. This is the starting point for the factors which are considered to be important and very important for the experts.

The second part was dedicated to the determination of the factors which were the most and least important for the investors while choosing Lithuania as a destination country for their investments, see Table 16. Kendal's W coefficient was calculated for each group of sub factors. Kendal's W coefficient shows that the respondents did not agree among themselves about the importance of labor force factors, cultural factors, infrastructure factors, economic factors, business environment. However p value for each

sub group was p = < 0.05, which means that the results are statistically significant.

The mean value, average ranking for labor force factors reveals, that the most important factor was talented and skilled, mean value 4.36 and work related experience, mean value 4.09. The least important factor for the experts was university graduates, expressed through mean value 2.91, see Fig. 16.

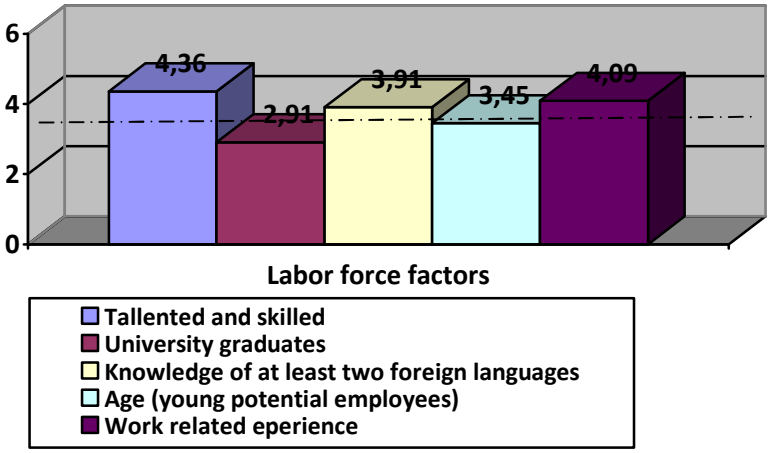


Fig. 16. The most/least attractive Labor force factors for FDI in Lithuania

The research reveals that foreign investors are least interested in education of potential employees and search those employees who have work related experience and are talented and skilled, see Fig. 16.

The highest mean value in cultural factors group scored the following factors: open to foreigners, mean value 4.45, motivated, mean value 4.27, and tolerant, mean value 4. Foreign investors were least interested in the religion of potential employees among cultural factors, mean value 2.55, see Fig. 17.

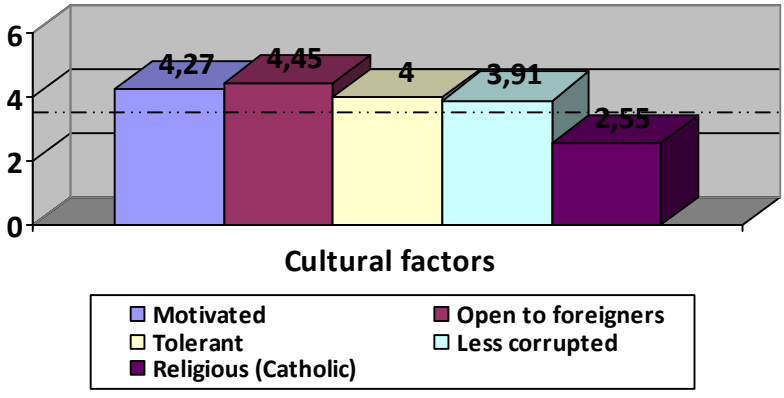


Fig. 17. The most/least attractive Cultural factors for FDI in Lithuania

The results of expert survey reveal that foreign investors do not consider religion of potential employees among most attractive factors, instead openness to foreigners is prevailing in this sub group,

see Fig. 17.

Infrastructure in Lithuania appeared to be not among the priority factor in attracting FDI to Lithuania according to expert survey results, see Fig. 18. All infrastructure factors were ranked relatively the same.

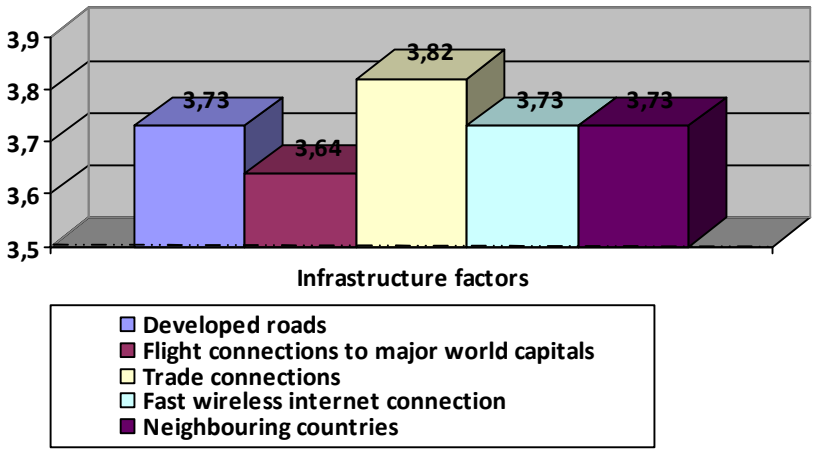


Fig. 18. The most/least attractive Infrastructure factors for FDI in Lithuania

Foreign investors ranked all infrastructure factors more or less the same, the lowest mean value 3.64 for flight connections to major world capitals and the biggest mean value 3.82 for trade connections, see Fig. 18.

Possibility of productivity growth is the leader in economic factor sub group, see Fig. 19.

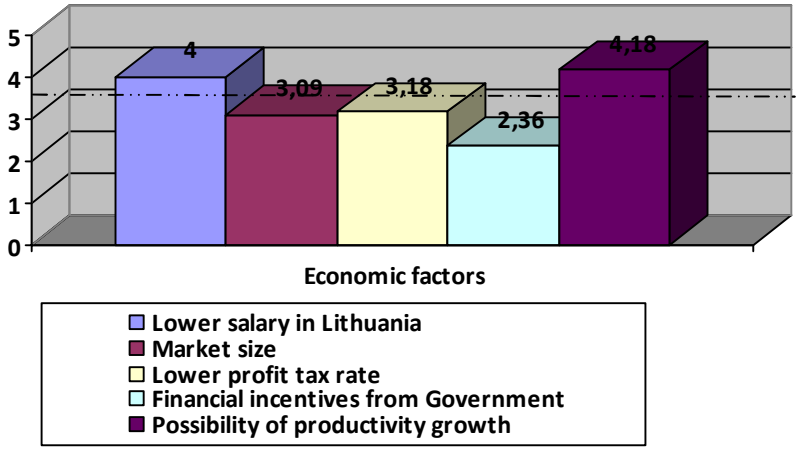


Fig. 19. The most/least attractive Economic factors for FDI in Lithuania

Foreign investors ranked possibility of production growth as the most important among economic

factors, mean value 4.18, and lower salary in Lithuania, mean value 4. Moreover, financial incentives from Government were ranked as least important, mean value 2.36, see Fig. 19.

Business environment is important for the foreign investors. They ranked possibility for innovations as the most important in this sub group, mean value 4.27, and less bureaucracy was ranked as least important, mean value 3.18, see Fig. 20.

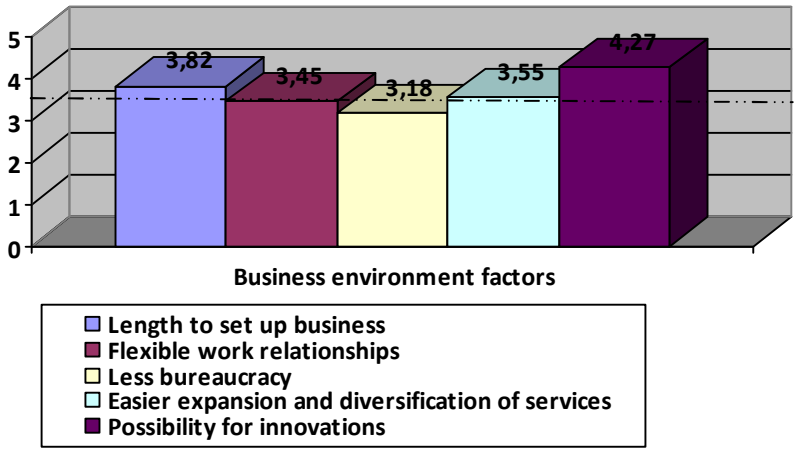


Fig. 20. The most/least attractive Business environment factors for FDI in Lithuania

Foreign investors ranked business environment factors relatively similar, as seen from Fig. 20. However innovations are prevailing in this sub group.

The third part evaluated the impact of FDI on the competitiveness of Lithuania, see Fig. 21.

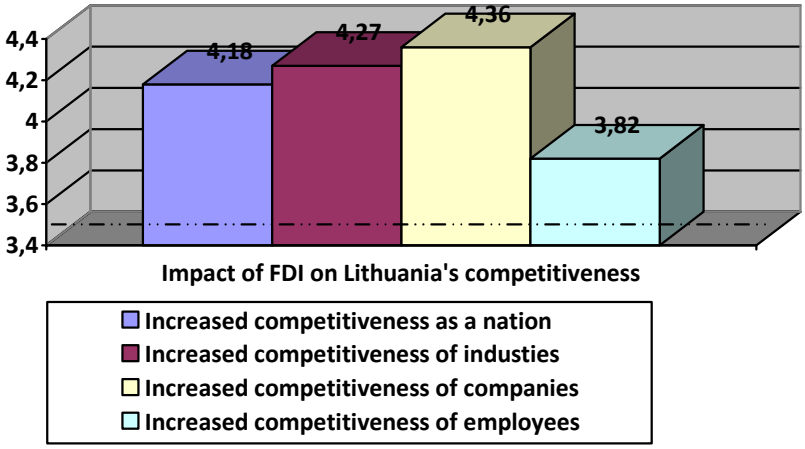


Fig. 21. The impact of FDI on Lithuania's competitiveness

Kendal's W concordance coefficient for this sub group was 0.184 which means that the respondents did not agree among themselves about the reply. However the results is statistically

significant, since p value is p = 0.003 < 0.05.

What is more, all respondents ranked these factors as important, meaning that the competitiveness of Lithuania due to FDI increased within all levels: nation (country), industries, companies (the highest mean value in sub group 4.36) and employees (the lowest mean value in sub group 3.82). All experts believe that FDI drives the competitiveness on Lithuania, as shown in Fig. 21 and creates value added within all four levels of competitiveness.

The fourth part revealed if any negative experience was encountered during foreign investment period. The situation of the investment climate in Lithuania could be improved as 5 out of 11 investors have gone through negative experience within foreign investment period, see Fig. 22.

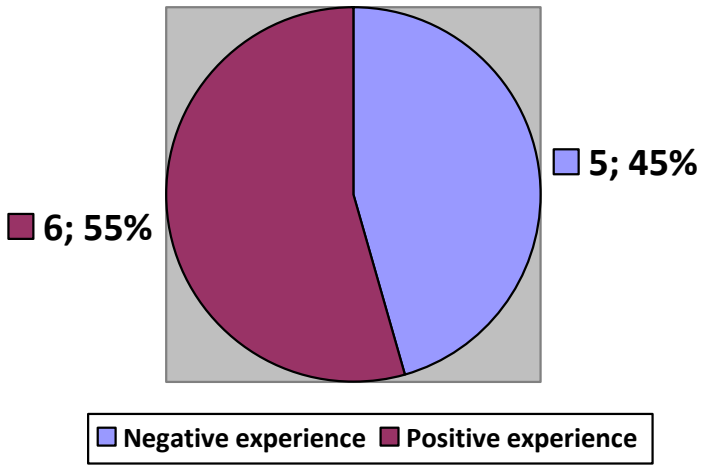


Fig. 22. Negative experience with FDI in Lithuania

The experts have mentioned bureaucracy, strict work relationships, miscommunication among Government institutions and tax system as challenges in Lithuania which resulted in negative experience within investment period, as expressed in Fig. 22. These areas for improvement will be addressed in conclusions and recommendations part.

The fifth part presented the suggestions how to attract more FDI to Lithuania, improve investment climate in order to eliminate possible negative investors' experience and become the country of FDI destinations. Kendal's W concordance coefficient for this part was 0.231 which means the respondents were not unanimous in ranking the suggestions, however the results are statistically significant as p = 0.005 < 0.05. Moreover, all the respondents ranked this part the highest points, meaning as important and very important because they believe that all actions are meaningful in order to attract FDI. The highest rank was dedicated to invite current investors to share good experience, mean value 4.82, the lowest mean value was dedicated to greater attention to regions and smaller towns, mean value 3.36. Fig. 23 presents

the suggestions how to attract more FDI to Lithuania.

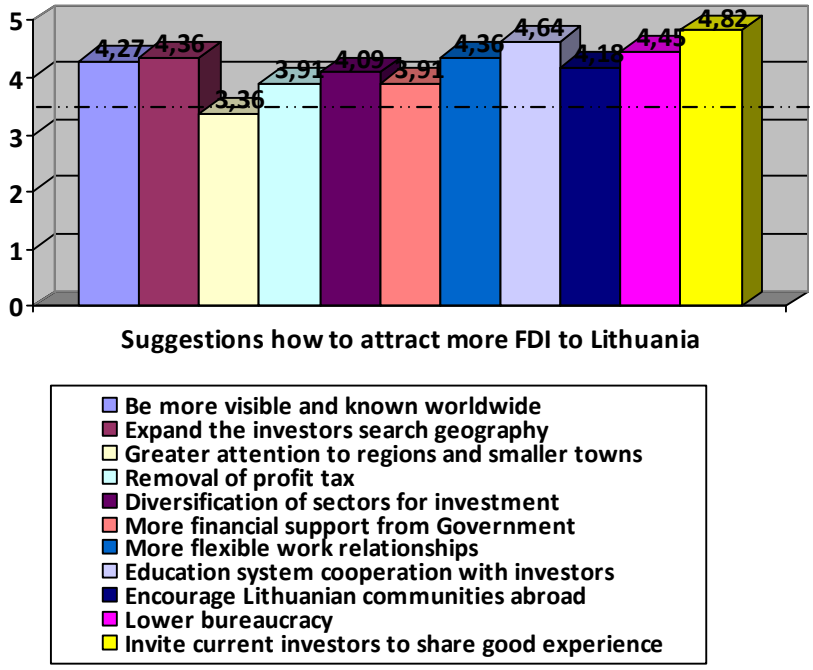


Fig. 23. Suggestions how to attract more FDI to Lithuania

A conclusion from Fig. 23 can be drawn, that the experts reassured and confirmed that Lithuania has to do all what it takes to attract more FDI since it is the engine which drives the competitiveness of the country. The suggestions were evaluated positively and this is expressed by the average of ratings, high mean value of each suggestion. The summary of expert survey results is presented in ANNEX 3.

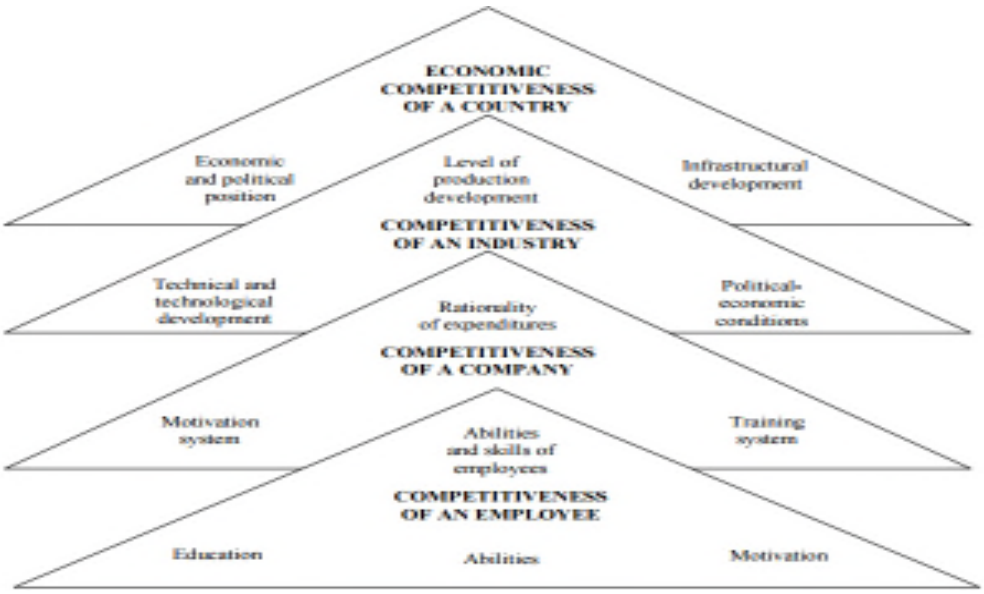
4.4. Conclusions and recommendations of empirical research

The European Commission (2015) places great emphasis on the country's competitiveness, because it contains indicators such as job creation, productivity, cost of doing business, innovation and growth**.** However, costs do not account for all competitive gains or losses.

The input and the meaningfulness of this research to the science is the innovatory part of the empirical research. Existing scientific researches lack of the studies on the examined variables and aspects which were performed in this empirical research. The novelty and exclusivity of this research is a significant contribution to the science by creating a unique model. The empirical research was performed in an exceptional way: testing the impact of FDI components on the place of Lithuania in the WEF GCI and conducting expert survey, see the form and structure of questionnaire in ANNEX 2.

The first stage of empirical research which was dedicated for the overview of statistics of FDI and the place of Lithuania in WEF GCI within the period of 2004-2014 appointed the relationship between the amount of FDI received yearly and the rank in GCI for Lithuania. The second stage of the empirical research, using quantitative method, where regression analysis was executed, revealed that only one component, namely reinvestments, out of three components of FDI, impacts the place of Lithuania in GCI. The third stage of empirical research, where qualitative method, expert survey, was implemented, revealed the factors which attracted the most/least FDI to Lithuania, any negative experience associated with investment in Lithuania, the positive impact of FDI on the competitiveness of Lithuania and suggestions how to attract more FDI to the country.

Competitiveness is a multilevel concept, see Fig. 24. At the level of the economy, it refers to the capacity of a nation to provide its citizens with increased living standards and jobs available, according to European Commission, 2015.



Source: Reiljan, Hinrikus, Ivanov 2000

Fig. 24. Country's competitiveness within different levels

Empirical research has helped to prove the evidence of the impact of FDI on the increase of Lithuania's competitiveness within all four levels. With the help of expert survey results, the impact of FDI on the competitiveness of Lithuania was researched within four levels: country (nation), industry, company and employee. The expert survey results indicate that experts ranked the impact of FDI on the competitiveness of Lithuania very positively, in other words, FDI was a very important factor on the increase of the competitiveness of Lithuania within all named four levels.

As portrayed in Fig. 24 the competitiveness of a nation (country) is divided into two sections: economic and political position and infrastructural development. Positive economic and political atmosphere was important to the foreign investors based on the expert survey results. The development and maintenance of strategic relationship with the countries who would guarantee economic freedom, security and competitive image globally would be advisable to Lithuania's top politicians and leaders. As seen from experts' responses, infrastructure was not among the priorities which attracted FDI to Lithuania therefore it can be assumed that no radical actions are required in this field.

Technical and technological development and political-economic conditions reflect the competitiveness of the industry. Lithuania has been fortunate enough to attract well known branches from IT, scientific, pharmaceutical and engineering industries which foster and develop research and innovations and contribute to the competitiveness of industries in Lithuania. Political-economic conditions are essential for the development of an industry. Tense relationship among neighboring countries, strict political attitude and image would not help to develop production and competitiveness of an industry in Lithuania. Flexibility of political decisions which effect Lithuania's economy would be welcomed from the investors' perspective.

Competitiveness of a company is one more level of overall competitiveness of a country (nation). Attractive motivation system which would result in creating competitive companies would contribute to the improvement of economic competitiveness of Lithuania. The implementation of complex training system related to internship and job opportunities could be one of the supporting factors which would encourage the creation of new competitive companies and help to plan rationally their expenditure as the desire for talented and skilled employees was declared in expert survey.

One more important level of the competitiveness within the country is the competitiveness of an employee. A competitive employee is the one who is attractive for potential employers. Expert survey identified that the most important features of employees are talent and skills, motivation. Education was ranked among the least important factors. Only with the right and competitive labor force companies can achieve their profit goals. As a result, the competitiveness of the industry the companies belong to, would increase and the country would benefit from the competitive results which would significantly increase the competitive position of Lithuania worldwide.

Understanding investors' needs in order to match the host country expectations is essential. It would be an appropriate practice to perform SWOT analysis (strength, weakness, opportunities and threats) analysis of FDI for each case including success factors, the analysis of present, past and future. Retention of FDI should be a priority assignment for the Government of Lithuania and to create the tools

which would not allow the multinational corporations to exit the market leaving disruption and chaos in Lithuania's economy. The exit of FDI from the host country could result in a financial disaster however the solution could be settled by offering post investment services, economic partnership development, sanctions and penalties could be implemented for exiting the market when causing substantial damage to Lithuania's economy.

The empirical research provided expert survey results which revealed the most attractive factors within work force, culture, infrastructure, economy and business environment. The model covering the factors which attract or repel FDI and the impact of FDI on the competitiveness of Lithuania summarizes the empirical research, is provided in Fig. 25. Experts ranked factors which were not so attractive in Lithuania. They are listed in the downward arrow on the left hand side. The elimination of the named factors could be a solution since the experts ranked them as not attractive for FDI. As a result these factors attract less FDI and the competitiveness of Lithuania decreases. Experts also disclosed the most attractive factors which determined FDI to Lithuania, as a result the competitiveness of Lithuania increases because more FDI are attracted to Lithuania. They are listed in the upward arrow on the right hand side. The development and focus on these factors in order to strengthen them could be set as a priority for Government Institutions and politicians in Lithuania since named factors were essential for the existing foreign investors. Only one exception, lower salary in Lithuania*, even though it was among the factors which attract the most FDI, should not be lowered further, since this fact does not increase competitiveness of an employee due to lower purchasing power and consumption. A strategic step of politicians and country leaders could be established through set primary focus on attracting reinvestment as a component of FDI, since it proved to make the positive impact through regression analysis on the competitiveness of Lithuania within four levels, as indicated further in the model. And the guidelines which are listed on further right hand side of the model are selected from the expert survey evaluations of the best ways how to attract more FDI to Lithuania.

Created model, see Fig. 25 could be a universal and be applied in real world and serve as the guidance for the future potential FDI projects, since it is based on the response and opinion of current foreign investors who have established their branches in Lithuania. This model could be applied in CEE countries, including Slovenia, Slovakia and Hungary since these countries have similar economic environment in comparison to Lithuania. However the content depends on the level of the development of the host country and the expectations and motives of the foreign investors.

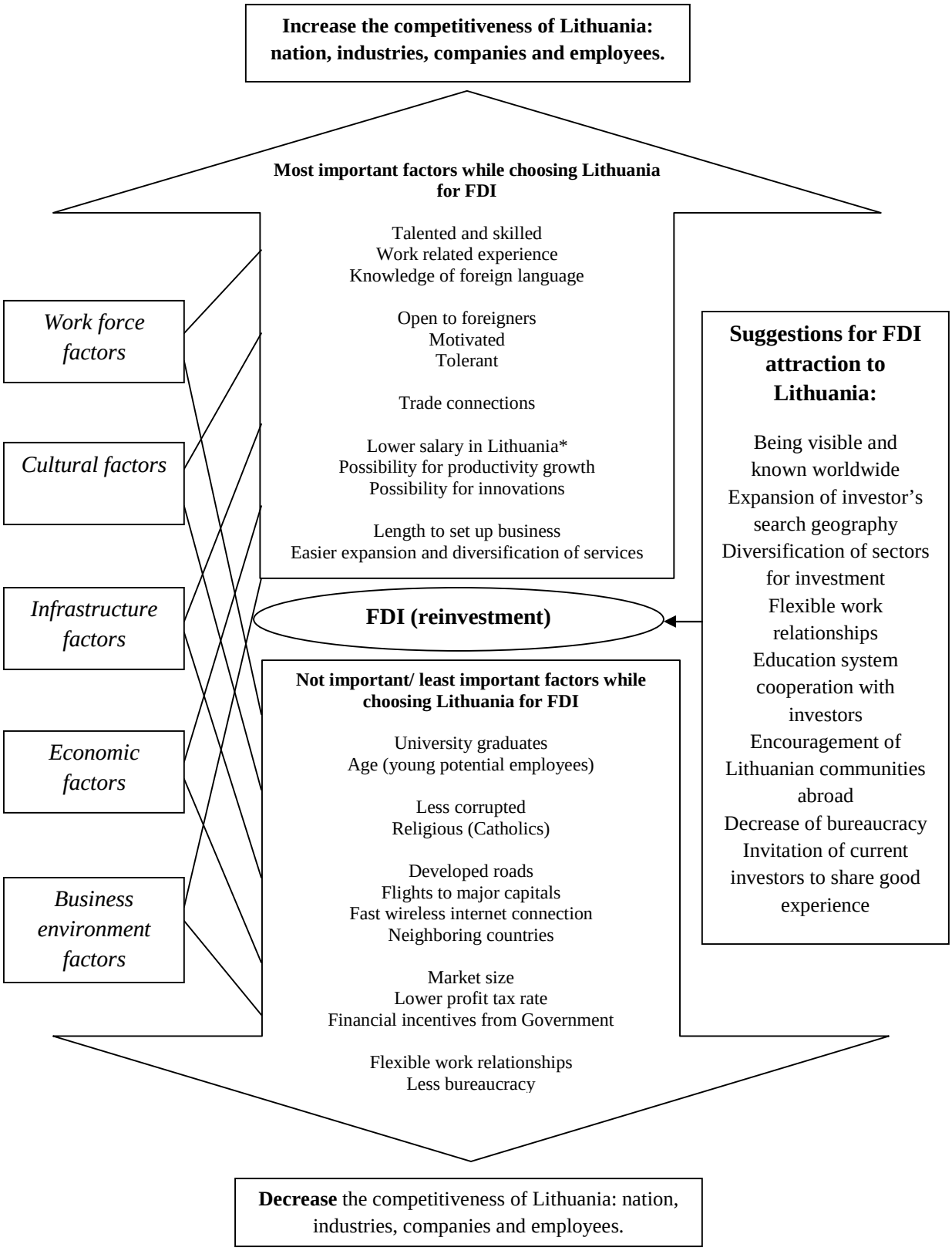


Fig. 25. Model of FDI attraction and the relationship with competitiveness of Lithuania

CONCLUSIONS

1. Scientific literature denotes FDI as the investment in a business by an investor from another country for which the foreign investor has control over the company 10 percent or more of the business. The types of FDI can either create a totally new business (Greenfield) or restructure and manage the existing one (M&A) providing two types of services spectrum with the intention either to offer existing services (horizontal) or to create totally new services and activities within the host country's market (vertical). The overview of scientific studies allows determining that there is a need of FDI for the investor and the host country. The impact that FDI brings, depends on many factors, including the motives of the investor, the reasons why the host country and the foreign investor are looking for the possibilities for mutual interaction to fulfill each party's demand for FDI and the conditions that a host country offers to the investor. The investor is in search for the new opportunities to expand the business at maximum return with minimum costs. Whereas the host country, who is accepting FDI, looks for the opportunities to access the international markets, increase the economy and welfare of the country and finally increase the country's competitiveness. However, the intentions from both parties not always bring the forecasted outcomes and results.

2. National competitiveness defines a country's ability to attract global attention as a primary location for FDI. Three indices are presented which assess the countries' competitiveness: The World Competitiveness Yearbook prepared by Institute for Management Development (IMD), Global Competitiveness Report issued by World Economic Forum (WEF) and Business Competitiveness Ease of Doing Business Report released by International Finance Corporation (IFC). WEF GCI provides the relationship of the results between government, business and civil society through the set of institutions, policies and factors that determine the level of productivity and competitiveness of a country within 12 pillars. This index is further used in empirical research due to its most comprehensive approach to assess a country's competitiveness. From reviewed scientific literature, common benefit of FDI is noticed within the countries is increased competitiveness and GDP. Weak economies with less attractive conditions experience smaller inflows of FDI and the foreign firms are likely to use technologies which are less advanced and contribute only marginally to local skills development and country's competitiveness.

3. After the scientific literature analysis, it was determined the need for innovative empirical research. The decision was made to use regression analysis in order to assess the dynamics of the place of Lithuania in WEF GCI. Important surveys are usually performed as part of huge extraordinary projects, however the surveys for smaller particular area are not so common and the information is not easily accessible. The lack of information about the motives of current investors in Lithuania influenced the

choice of expert survey method in order to understand why foreign investors are present in Lithuania identifying the factors which attract the most/ least FDI to Lithuania and how this presence impacts the competitiveness of Lithuania.

4. Empirical research revealed the fluctuations of FDI in 2004 – 2014 and not constant amounts reaching Lithuania. Regression analysis has tested the relationship of FDI components which are equity instruments, reinvestment and debt instruments with the place of Lithuania in WEF GCI. The relationship with only one component of FDI, reinvestment, was proved to be statistically correct. The experts have revealed the most attractive factors within work force, **c**ulture, infrastructure, economy and business environment and the factors which were not so attractive for the investment in Lithuania. The most important labor force factors are talented and skilled and work related experience, the least important factor is university graduates. The most important cultural factors are open to foreigners, motivated, and tolerant, the least important is the religion of potential employees. All infrastructure factors are ranked relatively the same however the least important factor is flight connections to major world capitals and the most important factor are trade connections. Foreign investors rank the possibility of production growth and lower salary in Lithuania as the most important among economic factors however financial incentives from Government are ranked as least important. The experts ranked possibility for innovations as the most important in business environment group and less bureaucracy was ranked as least important. The experts evaluate the impact of FDI on the competitiveness of Lithuania very positively meaning that the competitiveness of Lithuania due to FDI increases within all levels: nation (country), industries, companies and employees. The situation of the investment climate in Lithuania could be improved as 5 out of 11 investors have gone through negative experience within foreign investment period and mentioned bureaucracy, strict work relationships, miscommunication among Government institutions and tax system as challenges in Lithuania. The hypothesis tested, that FDI positively impacts the competitiveness of Lithuania, was confirmed.

5. Based on the results of empirical research the following original conclusions are drawn. The novelty and exclusivity of this research is a unique model creation on the impact of FDI on the competitiveness of Lithuania, an exceptional way of researching the variables: testing the impact of FDI components on the place of Lithuania in WEF GCI and conducting expert survey from the existing foreign investors in Lithuania which is the primary and original source for the assessment of the researched topic. A strategic step of politicians and country leaders could be established through set primary focus on attracting reinvestment as a component of FDI, since it proved to make the impact through regression analysis on the competitiveness of Lithuania. Based on the expert survey results and the disclosure of least

attractive factors for FDI, the elimination of the least important factors could be a solution since the experts ranked them as not attractive for FDI. As a result these factors attract less FDI and the competitiveness of Lithuania decreases. Experts also disclosed the most attractive factors which determined FDI to Lithuania, as a result the competitiveness of Lithuania increases because more FDI are attracted to Lithuania.

The experts reassured and confirmed that Lithuania has to do all what it takes to attract more FDI since it is the engine which drives the competitiveness of the country. The following actions are recommended in order to attract more FDI to Lithuania:

- **Be visible and known worldwide** through international media sources because the creation of positive image and sound declaration about proper destination for FDI will result in numerous foreign investors coming to Lithuania.
- **Expansion of investor's search geography** maintaining good relationships with potential business partners will allow providing business opportunities to totally new investors from the markets which have not yet invested in Lithuania.
- **Diversification of sectors for investment** will allow the Government of Lithuania to plan and forecast the areas where FDI is more needed and where the benefits could be executed at the maximum level for the needs of Lithuania.
- **Flexible work relationships** through the liberalization of labor code and tax system will allow foreign investors to manage the work flow during the high seasons and different periods of the day and allowing the employee to get more flexible vacation time as well.
- **Education system cooperation with investors**. Skills was the most important factor for current investors, informing education institution about the needs of employer will fulfill the necessary labor force gap and people will have already acquired job skills, as a result on the job training period will decrease and the value added for the company will be created quicker.
- **Encouragement of Lithuanian communities** abroad to spread the information about the business opportunities in Lithuania and contribute to the attraction of foreign capital to home country.
- **Decrease of bureaucracy** through the implementation of clear institutions and services provider for foreign investors will allow foreign investors functioning easier in a new country.
- **Invitation of current investors to share good experience.** Once the evidence of success is seen from current investors, the new potential investors will be inspired of impressive successful examples and get interested in new business opportunities to transfer their business to Lithuania.

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Melėnaitė D. The Assessment of the Impact of Foreign Direct Investment on the Country‘s Competitiveness / Master Thesis on Financial Markets. Supervisor assoc. prof. dr. R. Remeikienė. – Vilnius: Business and Media School, Mykolas Romeris University in cooperation with Middlesex University, 2015.

ANNOTATION

The impact of foreign direct investment (further - FDI) on Lithuania’s competitiveness is analyzed and assessed in this master thesis. The impact of FDI components on the place of Lithuania in World Economic Forum Global Competitiveness Index (WEF GCI) is empirically tested through regression analysis, with the help of expert evaluation the most/ least attractive factors for FDI are identified and the recommendations how to attract more FDI are produced. In the first part the theoretical aspects of FDI are summarised, including the types and the impact of FDI, the foreign investors’ motives for FDI are identified. In the second part of master’s thesis the notions of competitiveness are introduced, three major indices which assess the competitiveness of the countries worldwide are presented. After the scientific literature analysis, it was determined the need for innovative empirical research which would assess the impact of FDI components on the place of Lithuania in one of the competitiveness indices, World Economic Forum Global Competitiveness Index (WEF GCI), and the identification of the motives which attract foreign investors to Lithuania. The third part provides the methodological guidelines for regression analysis and expert survey results. The fourth part presents and examines unique and exceptional expert survey and regression analysis results. The fifth part provides the conclusions and recommendations including the unique model from the summary of expert survey results how to attract more FDI and boost investment climate in Lithuania

Key words: Foreign direct investment (FDI), competitiveness, impact.

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SUMMARY

The topic of master thesis is very relevant to the economists, Government institutions and politicians in Lithuania. National competitiveness defines a country’s ability to attract global attention as a primary location for FDI. The overview of scientific studies allows determining that there is a need of FDI for the investor and the host country. The impact that FDI brings, depends on many factors, including the motives of the investor, the reasons why the host country and the foreign investor are looking for the possibilities for mutual interaction to fulfill each party’s demand for FDI and the conditions that a host country offers to the investor. However, the intentions from both parties not always bring the forecasted outcomes and results.

The impact of FDI can be both positive and negative therefore it is essential to assess the case of Lithuania formulating the problem: what is the impact of FDI on Lithuania’s competitiveness? The object of the research is the impact of FDI on Lithuania’s competitiveness through the interaction of FDI components and the most or least attractive factors for the investment. The aim of the scientific research is to assess the factors which effect FDI attraction to Lithuania and their interaction with the level of Lithuania’s competitiveness. The objectives of the research are the following: to summarise the theoretical aspects of FDI and the impact on the country’s competitiveness, to define the methodology of empirical research for the impact of FDI on country’s competitiveness, to perform empirical research on the impact of FDI on Lithuania’s competitiveness through the interaction of FDI components and the most or least attractive factors for the investment and propose the recommendations how to improve investment climate and attract more FDI. The methods of the scientific research are systematic literature analysis, statistical data analysis, comparative analysis, regression analysis and expert survey.

Empirical research was performed to test the following hypothesis: FDI positively impacts the competitiveness of Lithuania. This hypothesis was confirmed based on the regression analysis and expert evaluation. Regression analysis confirmed that only one component of FDI, reinvestments, impact the place of Lithuania in WEF GCI. Expert survey also confirmed that FDI positively impact the competitiveness of Lithuania and revealed the factors which attract the most/ least foreign investors to Lithuania.

The significance of this research is the creation of a unique model of FDI impact on Lithuania's competitiveness, possibility to present to wide audience the facts, numbers and figures which are not easily available for the public even though the topic of the research is actual and widely discussed among various layers of the society. The experts reassured and confirmed that Lithuania has to do all what it takes to attract more FDI since it is the engine which drives the competitiveness of the country.

The experts revealed the most attractive factors within work force, culture, infrastructure, economy and business environment and the factors which were not so attractive for the investment in Lithuania. The elimination of the least important factors could be a solution since the experts ranked them as not attractive for FDI. As a result these factors attract less FDI and the competitiveness of Lithuania decreases. Experts also disclosed the most attractive factors which determined FDI to Lithuania, as a result the competitiveness of Lithuania increases because more FDI are attracted to Lithuania. The recommendations how to improve foreign investment climate in Lithuania are presented in the last part.

ANNEXES

ANNEX 1

The components of WEF Global Competitiveness Index

<table>
<tr>
<td>BASIC REQUIREMENTS 20-60%</td>
<td>7th pillar: Labor market efficiency 17%
A. Flexibility 50%
• Cooperation in labor-employer relations
• Flexibility of wage determination
• Hiring and firing practices
• Redundancy costs
• Effect of taxation on incentives to work
B. Efficient use of talent 50%
• Pay and productivity
• Reliance on professional management
• Country capacity to retain talent
• Female participation in labor force</td>
</tr>
<tr>
<td>1st pillar: Institutions 25%
A. Public institutions 75%
1. Property rights 20%
• Property rights
• Intellectual property protection
2. Ethics and corruption 20%
• Diversion of public funds
• Public trust in politicians
• Irregular payments and bribes
3. Undue influence 20%
• Judicial independence
• Favoritism in decisions of Government officials
4. Government efficiency 20%
• Wastefulness of Government spending
• Burden of Government regulation
• Efficiency of legal framework in settling disputes
• Efficiency of legal framework in challenging regulations
• Transparency of Government policymaking
5. Security 20%
• Business costs of terrorism
• Business costs of crime and violence
• Organized crime
• Reliability of police services
B. Private institutions 25%
6. Corporate ethics 50%
• Ethical behavior of firms
7. Accountability 50%
• Strength of auditing and reporting standards
• Efficiency of corporate boards
• Protection of minority shareholders interests
• Strength of investor protection</td>
<td>8th pillar: Financial market development 17%
A. Efficiency 50%
• Availability of financial services
• Affordability of financial services
• Financing through local equity market
• Ease of access to loans
• Venture capital availability
B. Trustworthiness and confidence 50%
• Soundness of banks
• Regulation of securities exchanges
• Legal rights index</td>
</tr>
<tr>
<td>2nd Pillar: Infrastructure 25%
A. Transport infrastructure</td>
<td>9th pillar: Technological readiness 17%
A. Technological adoption 50%</td>
</tr>
</table>

• Quality of overall infrastructure • Quality of roads • Quality of railroad infrastructure • Quality of port infrastructure • Quality of air transport infrastructure • Available airline seat kilometers B. Electricity and telephony infrastructure • Quality of electricity supply • Mobile telephone subscriptions • Fixed telephone lines	• Availability of latest technologies • Firm-level technology absorption • FDI and technology transfer B. ICT use 50% • Internet users • Broadband internet subscriptions • Internet bandwidth • Mobile broadband subscriptions • Mobile telephone subscriptions • Fixed telephone lines
3rd pillar: Macroeconomic environment 25% • Government budget balance • Gross national savings • Inflation • Government debt • Country credit rating	**10th pillar: Market size 17%** A. Domestic market size 75% B. Foreign market size 25%
4th pillar: Health and primary education 25% A. Health 50% • Business impact of malaria • Malaria incidence • Business impact of tuberculosis • Tuberculosis incidence • Business impact of HIV/AIDS • HIV prevalence • Infant mortality • Life expectancy B. Primary education 50% • Quality of primary education • Primary education enrollment rate	**INNOVATION AND SOPHISTICATION FACTORS 5-30%**
EFFICIENCY ENHANCERS 35-50%	**11th pillar: Business sophistication 50%** • Local supplier quantity • Local supplier quality • State of cluster development • Nature of competitive advantage • Value chain breadth • Control of international distribution • Production process sophistication • Extent of marketing • Willingness to delegate authority • Reliance on professional management
5Th pillar: Higher education and training 17% A. Quantity of education 33% • Secondary education enrollment rate • Tertiary education enrollment rate B. Quality of education 33% • Quality of the education system • Quality of math and science education • Quality of management schools C. On-the-job training • Local availability of specialized research and training services • Extent of staff training	**12th pillar: R&D Innovation 50%** • Capacity for innovations • Quality of scientific research institutions • Company spending on R&D • University-industry collaboration in R&D • Government procurement of advanced technology products • Availability of scientists and engineers • PCT patent applications
6th pillar: Goods market efficiency 17% A. Competition 67% 1. Domestic competition variable	

• Intensity of local competition • Extent of market dominance • Effectiveness of anti-monopoly policy • Effect of taxation on incentives to invest • Total tax rate • Number of procedures required to start a business • Time required to start a business • Agricultural policy costs 2. Foreign competition variable • Prevalence of trade barriers • Trade tariffs • Prevalence of foreign ownership • Business impact of rules on FDI • Burden of customs procedures • Imports as a percentage of GDP B. Quality of demand conditions 33% • Degree of customer orientation • Buyer sophistication	

ANNEX 2

Dear Expert,
Thank you very much for your response. I appreciate your contribution to the research, your opinion makes a difference.

Daiva Melenaite, a Master degree student of Vilnius Mykolas Romeris University in cooperation with London Middlesex University, is conducting a research on the competitiveness of Lithuania with the help of Foreign Direct Investment. One of the main tasks is to distinguish and disclose the reasons which attract foreign investors to transfer their investment to Lithuania, assess the impact of FDI on the competitiveness of Lithuania, identify if the investors have undergone through any negative experience during the investment process, and to point out the suggestions how to attract more FDI to Lithuania.

Your answers will help to create the concept of the attractiveness of Lithuania from the foreign investors' point of view; will also help to identify pain points and the opportunities for the attractions and development of Foreign Direct Investment in Lithuania.

Your participation is of utmost importance.
The results of the research can be disclosed upon your inquiry.

***Could you please send back completed questionnaire to:* damelenaite@stud.mruni.eu**

I. INFORMATION ABOUT THE INVESTMENT PROJECT

1. The origin country of the investment

_____

2. The name of the investment project and the area of business in Lithuania

_____

II. THE REASONS WHY LITHUANIA WAS CHOSEN FOR THE INVESTMENT

Please evaluate and rank the importance of each factor listed bellow. The evaluation is based on a five point scale where 5 = strongly agree, very important and 1 = strongly disagree, least important. Same evaluation might be given to different factors.

1. Workforce factors

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
Talented and skilled	1	2	3	4	5
University graduates	1	2	3	4	5
Knowledge of at least two foreign languages	1	2	3	4	5
Age (young potential employees)	1	2	3	4	5
Work related experience	1	2	3	4	5

2. Cultural factors

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
Motivated	1	2	3	4	5
Open to foreigners	1	2	3	4	5
Tolerant	1	2	3	4	5
Less corrupted	1	2	3	4	5
Religious (catholic)	1	2	3	4	5

3. Infrastructure factors

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
Developed roads	1	2	3	4	5
Flight connections to major world capitals	1	2	3	4	5
Trade connections	1	2	3	4	5
Fast wireless internet connection	1	2	3	4	5
Neighboring countries	1	2	3	4	5

4. Economic factors

	Strongly disagree	**Disagree**	**Neither agree nor disagree**	**Agree**	**Strongly agree**
Lower salary in Lithuania	1	2	3	4	5
Market size	1	2	3	4	5
Lower profit tax rate	1	2	3	4	5
Financial incentives from Government	1	2	3	4	5
Possibility of productivity growth	1	2	3	4	5

5. Business environment

	Strongly disagree	**Disagree**	**Neither agree nor disagree**	**Agree**	**Strongly agree**
Length to set up business	1	2	3	4	5
Flexible work relationships	1	2	3	4	5
Less bureaucracy	1	2	3	4	5
Easier expansion and diversification of services	1	2	3	4	5
Possibility for innovations	1	2	3	4	5

III. THE ASSESSMENT OF THE IMPACT OF FDI ON LITHUANIA'S COMPETITIVENESS

6. Competitiveness levels

	Strongly disagree	**Disagree**	**Neither agree nor disagree**	**Agree**	**Strongly agree**
Increased competitiveness as a nation (country)	1	2	3	4	5
Increased competitiveness of industries	1	2	3	4	5
Increased competitiveness of companies	1	2	3	4	5
Increased competitiveness of employees	1	2	3	4	5

IV. PERSONAL NEGATIVE EXPERIENCE RELATED WITH THE INVESTMENT

1. Have you undergone through any negative experience connected with the investment in Lithuania?
❑ Yes
❑ No

2. If answered „yes" previously, could you please specify the details?
❑ Bureaucracy ❑ Strict work relationships ❑ Tax system ❑ Other (list your own reason)

V. THE OPPORTUNITIES OF FDI ATTRACTION TO LITHUANIA

7. Suggestions for FDI attraction to Lithuania

	Strongly disagree	**Disagree**	**Neither agree nor disagree**	**Agree**	**Strongly agree**
Be more visible and known worldwide	1	2	3	4	5
Expand the investors search geography	1	2	3	4	5
Greater attention to regions and smaller towns	1	2	3	4	5
Removal of profit tax	1	2	3	4	5
Diversification of sectors for investment	1	2	3	4	5
More financial support from Government	1	2	3	4	5
More flexible work relationships	1	2	3	4	5
Education system cooperation with investors	1	2	3	4	5
Encourage Lithuanian communities abroad	1	2	3	4	5
Lower bureaucracy	1	2	3	4	5
Invite current investors to share good experience	1	2	3	4	5

I APPRECIATE YOUR RESPONSE, THANK YOU VERY MUCH FOR YOUR COOPERATION.

ANNEX 3

Expert survey results	Statistic	Statistic Minimum	Statistic Maximum	Statistic Mean
Labor force factors				
Q0101 Talented and skilled	11	3	5	4,36
Q0102 University graduates	11	1	5	2,91
Q0103 Knowledge of at least two foreign languages	11	2	5	3,91
Q0104 Age (young potential employees)	11	1	5	3,45
Q0105 Work related experience	11	2	5	4,09
Cultural factors				
Q0201 Motivated	11	3	5	4,27
Q0202 Open to foreigners	11	3	5	4,45
Q0203 Tolerant	11	3	5	4,00
Q0204 Less corrupted	11	2	5	3,91
Q0205 Religious (catholic)	11	1	5	2,55
Infrastructure factors				
Q0301 Developed roads	11	3	5	3,73
Q0302 Flight connections to major world capitals	11	2	5	3,64
Q0303 Trade connections	11	3	5	3,82
Q0304 Fast wireless internet connection	11	3	5	3,73
Q0305 Neighboring countries	11	1	5	3,73
Economic factors				
Q0401 Lower salary in Lithuania	11	1	5	4,00
Q0402 Market size	11	1	5	3,09
Q0403 Lower profit tax rate	11	1	5	3,18
Q0404 Financial incentives from Government	11	1	5	2,36
Q0405 Possibility of productivity growth	11	3	5	4,18
Business environment factors				
Q0501 Length to set up business	11	3	5	3,82
Q0502 Flexible work relationships	11	2	5	3,45
Q0503 Less bureaucracy	11	2	5	3,18
Q0504 Easier expansion and diversification of services	11	2	4	3,55
Q0505 Possibility for innovations	11	3	5	4,27
Competitiveness levels				
Q0601 Increased competitiveness as a nation (country)	11	3	5	4,18
Q0602 Increased competitiveness of industries	11	3	5	4,27
Q0603 Increased competitiveness of companies	11	3	5	4,36
Q0604 Increased competitiveness of employees	11	3	5	3,82
Suggestions how to attract more FDI to Lithuania				
Q0701 Be more visible and known worldwide	11	2	5	4,27
Q0702 Expand the investors search geography	11	2	5	4,36
Q0703 Greater attention to regions and smaller towns	11	2	5	3,36
Q0704 Removal of profit tax	11	2	5	3,91
Q0705 Diversification of sectors for investment	11	2	5	4,09
Q0706 More financial support from Government	11	2	5	3,91
Q0707 More flexible work relationships	11	3	5	4,36
Q0708 Education system cooperation with investors	11	3	5	4,64
Q0709 Encourage Lithuanian communities abroad	11	3	5	4,18
Q0710 Lower bureaucracy	11	2	5	4,45
Q0711 Invite current investors to share good experience	11	4	5	4,82

DECLARATION OF INDEPENDENCE OF THE MASTER THESIS

01 - 12 - 2015

Vilnius

I_____**Daiva Melėnaitė**_____

(student's first name and last name)

student of Mykolas Romeris University in cooperation with Middlesex University (herein after – University),

_____Business and Media School, Financial Markets_____

(name of faculty/ institute, programme)

declare that the master thesis

"The Assessment of the Impact of Foreign Direct Investment on the Country's Competitiveness":

1. Is written independently and fairly;
2. Was not presented in any other higher education institution in Lithuania nor foreign country;
3. Is written respecting principles of academic writing and is based on methodic guidelines for writing a final thesis;

I am informed that the student can be expelled from the University for violation of academic ethics, if the principle of fair competition (i.e. plagiarism) is violated

_____ __**Daiva Melėnaitė**_____

(signature) (first name, last name)

Author:

Daiva Melėnaitė

The title of Master Thesis in English:

The Assessment of the Impact of Foreign Direct Investment on the Country's Competitiveness

The title of Master Thesis in Lithuanian:

Tiesioginių Užsienio Investicijų Įtakos Šalies Konkurencingumui Vertinimas

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