

## **Magdalena Tondeva Pavlovska, PhD**

Senior Tax Consultant

PricewaterhouseCoopers dooel, Skopje

E-mail: magdalena.pavlovska@mk.pwc.com

# **RANKING THE LOCATION DETERMINANTS AS PER THEIR IMPORTANCE FOR THE FOREIGN INVESTORS – A SURVEY**

UDK / UDC: 339.727.22(497.7)

JEL klasifikacija / JEL classification: F21, F23

Prethodno priopćenje / Preliminary communication

Primljeno / Received: 31. kolovoza 2012. / August, 31, 2012

Prihvaćeno za tisak / Accepted for publishing: 27. studenog 2012. / November 27, 2012

### ***Abstract***

*Based on the analysis of results gained from the surveys undertaken by international organisations, and based on personal survey, the aim of the research was to contribute to the identification of relevant determinants that have influence on multinational company's location decisions when investing abroad. By using the method of questionnaire we have performed a survey in order to reveal the perception of the foreign investors in Macedonia. According to UNCTAD's survey the most important location determinants globally are the following: the macroeconomic and political stability, the quality of telecommunications, availability and cost of the highly skilled labour, corporate taxes and quality of the banking and financial services. The analyses of the perception of the foreign investors in Macedonia shows that the corporate taxation is of the highest importance, followed by the political and macroeconomic stability, personal taxation and investment incentives. Additional analyses per sectors and type of investment (horizontal or vertical) shows variety of factor rankings.*

***Keywords: foreign direct investments (FDI), location decisions, determinants of location decisions, vertical and horizontal types of FDI***

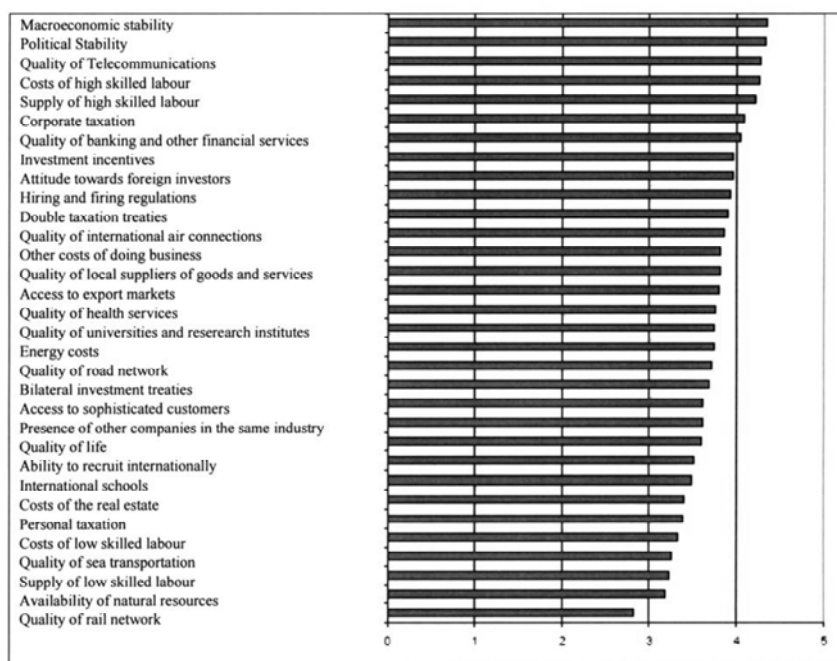
## **1. SURVEY'S BACKGROUND**

It is recognised that foreign direct investments (FDI) produces economic benefits for the recipient countries. In order to succeed in the battlefield of attracting FDI the countries should investigate the importance of the underlying location factors that attracts foreign investors. Many empirical studies have been performed during the last years conducted by various international organisations and researchers with aim to assess the relative importance of location determinants that affect inflow of FDI in the host countries. The aim of this study is to reveal the perception of the foreign investors with respect to the importance of the location determinants of the host countries on a world-wide basis and in particular for Macedonia.

## **2. UNCTAD-WAIPA'S SURVEY FOUND STABILITY FACTORS AS MOST IMPORTANT FOR INVESTMENT DECISIONS**

Five years ago, in 2007 UNCTAD and WAIPA jointly conducted Worldwide Survey of Foreign Affiliates. Actually, that was a first study of its kind that examine the views of foreign affiliates with regard to local business environments in their respective host economies. The survey questionnaire was sent to chief executive officers (CEOs) of 850 foreign affiliates located in 59 host countries. The survey asked the CEOs of foreign affiliates to rank various location factors according to their importance in investment decision-making. The survey covered 57 developing countries, 25 developed countries and 14 countries from South-East Europe and the Commonwealth of Independent States. The CEOs were asked to rank 33 location factors and to assess with scores from 1- not at all important to 5-extremely important (UNCTAD-WAIPA, 2007).

Macroeconomic and political stability factors were considered the most important, with average scores of 4.3 (figure 1). Other important factors include the quality of telecommunications, the supply and costs of skilled labour, corporate taxes and the quality of banking and other financial services. Among the least important factors were the quality of rail and sea transportation, availability of natural resources and the supply and costs of low-skilled labour, although with considerable variation among respondents (UNCTAD-WAIPA, 2007).



Source: UNCTAD-WAIPA, (2007), *Worldwide Survey of Foreign Affiliates*, (New York and Geneva: UNCTAD)

Figure 1: Perceived importance of location factors by 97 CEO (average results: 1 – not at all important; 5 – extremely important)

The abovementioned results are for the sample as a whole, covering different types of countries and different types of sectors. Therefore, further analysis is required in order to reveal the differences on country-by-country basis as well as preferences of different sectors. In terms of geographical variation, the results show that foreign affiliates in developing economies put more emphasis on political stability, compared with those in other host economies. Corporate income taxes are regarded as particularly important by foreign affiliates in manufacturing sector and services, while incentives seem to be of the greatest importance for those in manufacturing (annex table 1). In addition foreign affiliates in manufacturing gave high importance to the cost of low-skilled labour (UNCTAD-WAIPA, 2007).

Further, the executives were asked to assess how well their host country performed on the various locational factors. The highest scores were given to countries' attitudes towards foreign investors, corporate income taxes and double taxation treaties. A regional comparison reveals that developed countries generally score better than developing and transition economies. They do

particularly well with regard to double taxation treaties, telecommunications and financial services, as well as stability factors. Developing and transition economies received higher scores with regard to the supply of low-skilled labour (UNCTAD-WAIPA, 2007).

### **3. LOCATIONAL DETERMINANTS RANKING IN MACEDONIA**

#### **3.1. Overall, the corporate taxation was considered the most important locational determinant in Macedonia**

In 2011 we have conducted survey where we examined the views of 13 foreign affiliates of MNEs in Macedonia with respect to perceived importance of various location factors relevant for the investment decision making. The survey questionnaire was sent to CEOs of 14 foreign affiliates in Macedonia whereas 13 CEOs completed the questionnaire, corresponding to a response rate of 93 per cent. The total value of the invested capital in the foreign affiliates-participants in the survey was EUR 510 million, meaning that each of them represents relatively large foreign investment. The survey was anonymous and asked the CEOs to rank 27 location factors according to their importance in investment decision-making and to assess with scores from 1 (not at all important) to 5 (extremely important). In addition to the ranking of the location factors, participants were asked to assess factors that represent barriers in respect of their investment in Macedonia as well as how are the host-country's performance with respect to such barriers.

For the purposes of more analytical research participants were asked to indicate their principal industry i.e. to classify their company into one of the three groups: natural resource-based, manufacturing and services companies. Also they were asked for information about the model of the investment, i.e. whether it is a vertical type or a horizontal one (vertical-geographically separate activities by stage of production; horizontal - duplicate roughly the same activities).

The corporate taxation, was considered the most important factor, with average score of 4.5 (table 1 and figure 2). Other important factors include: investment incentives, personal taxation and political stability with average scores of 4.4. The supply of high-skilled labour was ranked higher than the supply of low-skilled labour. Also the costs of high-skilled labour as a locational determinant was ranked higher than the costs of low-skilled labour. Among the least important factors were the quality of rail transportation, availability of natural resources and the supply and presence of other companies in the same industry (table 2 and figure 2 below).

Table 1

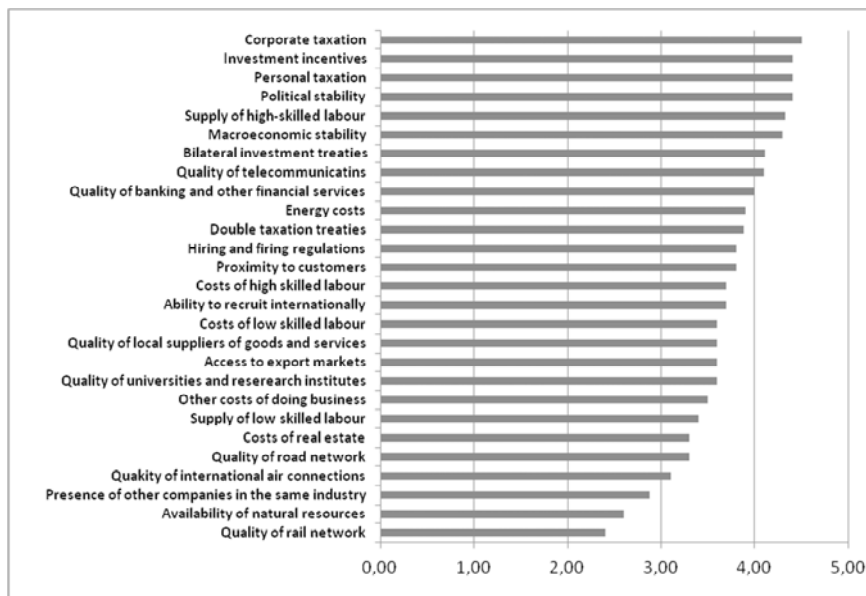
Perceived importance of location factors by the foreign affiliates in Macedonia – total sample

<b>Location factors</b>	<b>Assessed importance of each factor</b>
Corporate taxation	4,50
Political stability	4,40
Personal taxation	4,40
Investment incentives	4,40
Macroeconomic stability	4,30
Supply of high-skilled labour	4,33
Quality of telecommunications	4,10
Bilateral investment treaties	4,11
Quality of banking and other financial services	4,00
Energy costs	3,90
Double taxation treaties	3,88
Proximity to customers	3,80
Hiring and firing regulations	3,80
Ability to recruit internationally	3,70
Costs of high skilled labour	3,70
Quality of universities and research institutes	3,60
Access to export markets	3,60
Quality of local suppliers of goods and services	3,60
Costs of low skilled labour	3,60
Other costs of doing business	3,50
Supply of low skilled labour	3,40
Quality of road network	3,30
Costs of real estate	3,30
Quality of international air connections	3,10
Presence of other companies in the same industry	2,88
Availability of natural resources	2,60
Quality of rail network	2,40

*Source: author's own survey*

Compared to the results of the survey undertaken by UN and WAIPA, it could be concluded that the preferences of the foreign investors in Macedonia do not differ considerably with those of the investors world-wide. Namely, the political and the macroeconomic stability in addition to the corporate taxation and the supply of high-skilled labour have been assessed as factors of extremely importance for the foreign investors, whereas the corporate taxation in Macedonia has been assessed as the most important factor. In addition, investors in

Macedonia put very high importance to the investment incentives. In both surveys the quality of rail transportation and availability of natural resources have been assessed as less important factors.



Source: author's own survey

Figure 2: Perceived importance of location factors by the foreign affiliates in Macedonia – total sample

### 3.2. Analysis per sector reveals differences in the foreign investor's preferences

Further analyses of the ranking of the location determinants per business sector and per type of investment (vertical and horizontal) reveal differences in the preferences of the foreign investors. It is worth mentioning that in the natural resource-based type of companies has been included the entire primary sector, natural resource-based manufacturing (wood and mineral products, coke, petroleum products, metal and metal products) and trade of fuels and minerals under the International Standard Industrial Classification (ISIC) codes. Manufacturing includes the complete secondary sector under the ISIC code, except those industries that are included in the natural resource-based category. Services include all tertiary industries except those included in the natural resource-based group.

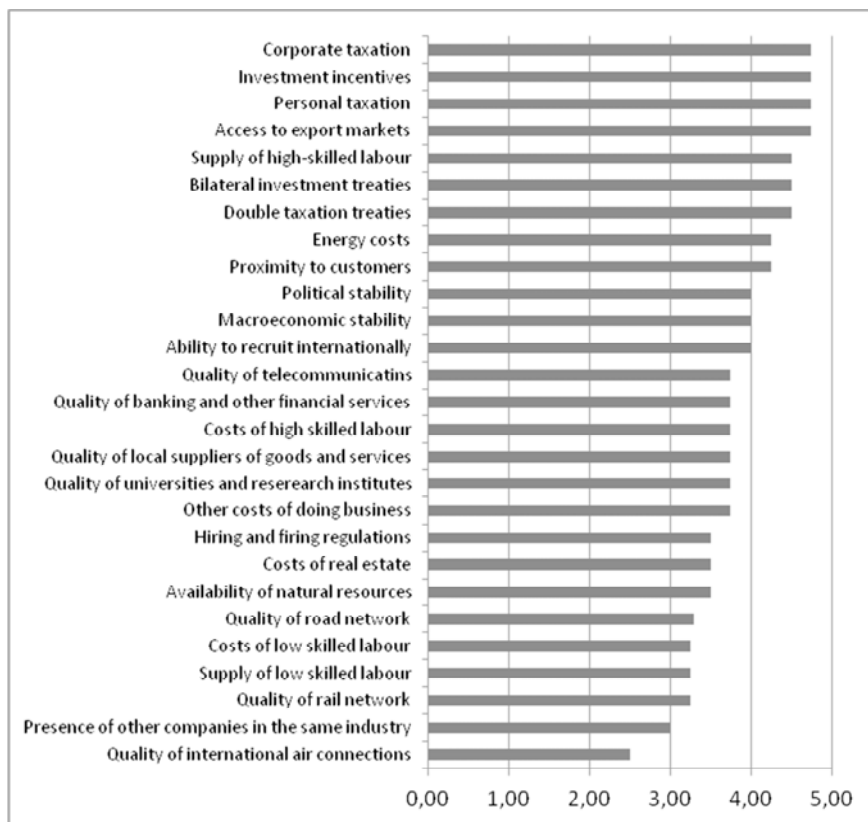
Table 2

## Perceived importance of location factors in Macedonia – by sector

Location factors	Resource-based	Manufacturing	Services
Quality of telecommunications	3,750	4,000	4,667
Quality of banking and other financial services	3,750	4,667	3,667
Quality of road network	3,500	4,000	2,333
Quality of international air connections	2,500	3,667	3,333
Quality of rail network	3,250	2,333	1,333
Quality of universities and research institutes	3,750	3,667	3,333
Access to export markets	4,750	4,000	1,667
Proximity to customers	4,250	3,333	3,667
Quality of local suppliers of goods and services	3,750	3,667	3,333
Availability of natural resources	3,500	2,333	2,000
Presence of other companies in the same industry	3,000	1,667	3,667
Macroeconomic stability	4,000	4,333	4,667
Political stability	4,000	4,333	5,000
Personal taxation	4,750	4,667	3,667
Corporate taxation	4,750	4,667	4,000
Investment incentives	4,750	4,333	4,000
Supply of low skilled labour	3,250	4,000	3,000
Supply of high-skilled labour	4,500	4,333	4,000
Ability to recruit internationally	4,000	3,667	3,333
Hiring and firing regulations	3,500	4,000	4,000
Energy costs	4,250	4,667	2,667
Costs of low skilled labour	3,250	4,333	3,333
Costs of high skilled labour	3,750	4,000	3,333
Costs of real estate	3,500	3,333	3,000
Other costs of doing business	3,750	3,667	3,000
Bilateral investment treaties	4,500	3,333	4,333
Double taxation treaties	4,500	3,333	3,667

*Source: author's own survey*

It could be concluded that the most important locational factors for the *resource-based companies* are: the corporate taxation, investment incentives and access to export markets. Important factors for this type of companies are also energy costs and proximity to customers. The supply of high-skilled labour is also considered as an important factor. The macroeconomic and political stability seem to be not such important factors as they were for the total sample. It is very surprisingly that the availability to natural resources was not regarded as one of the important factors.

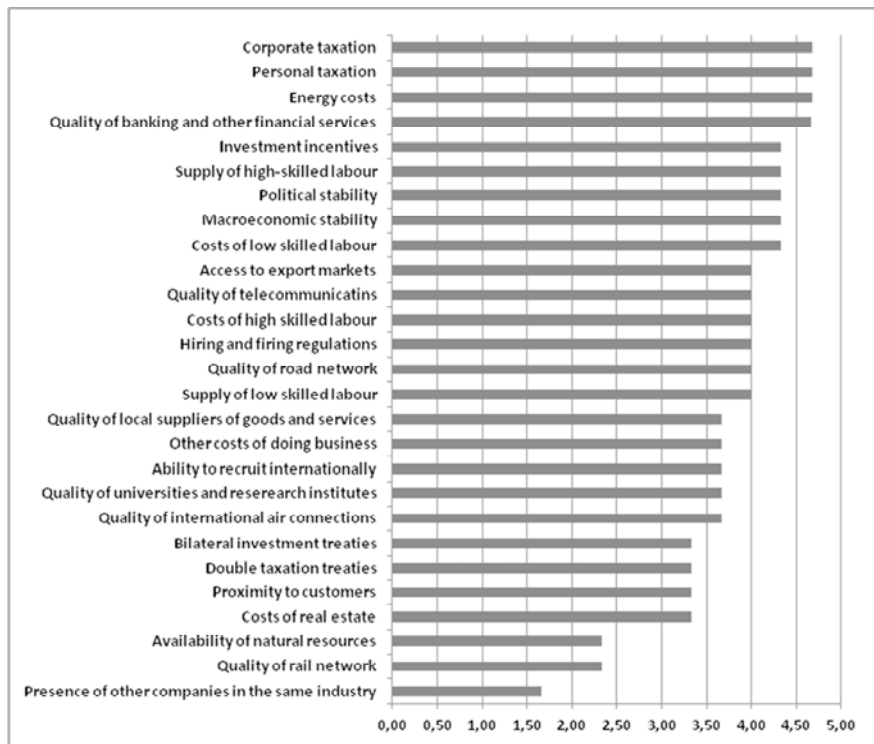


Source: author's own survey

Figure 3: Perceived importance of location factors in Macedonia – resource-based companies

The most important locational factors for the *manufacturing companies* are the energy costs, the corporate and personal taxation with score of 4,67. The quality of banking and other financial services have been also assessed as important factors for this type of companies. Highly ranked was also the supply of high-skilled labour. For this type of companies the cost of low-skilled labour is more important than it was the case with the resource-based and the companies in the service sector. It seems that for the manufacturing companies the access to the foreign markets is far more important than the proximity to the local customers. The macroeconomic and political stability are factors of medium importance for the manufacturing sector.

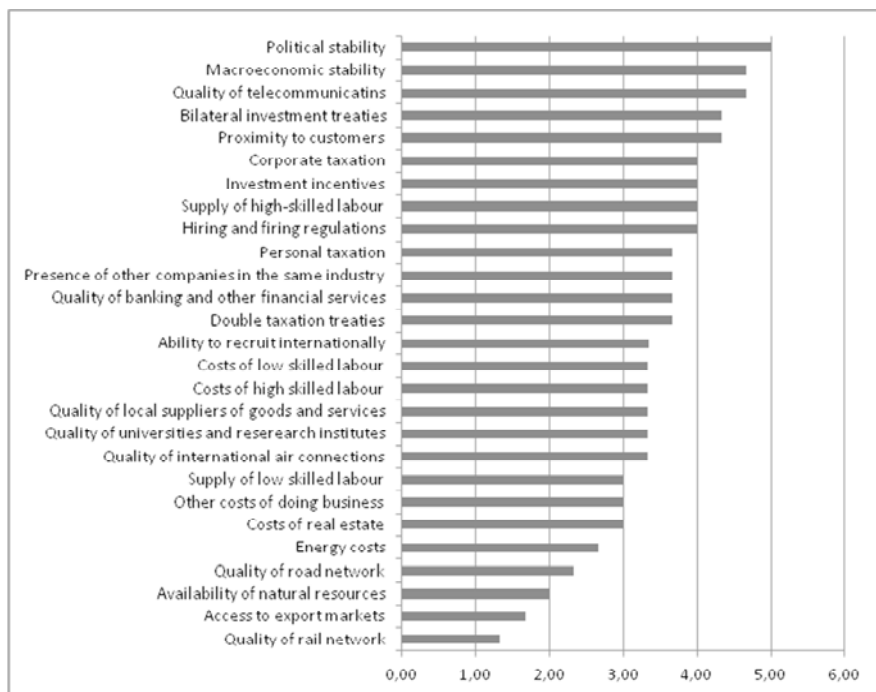




Source: author's own survey

Figure 4: Perceived importance of location factors in Macedonia – manufacturing companies

Political and economic stability as well as the quality of telecommunications are regarded as particularly important by foreign affiliates in the *services sector*. The corporate income taxes and the incentives seem to be also of great importance for this type of companies with score of 4,00. For this sector the proximity of customers is far more important factor than for the manufacturing and primary sector.



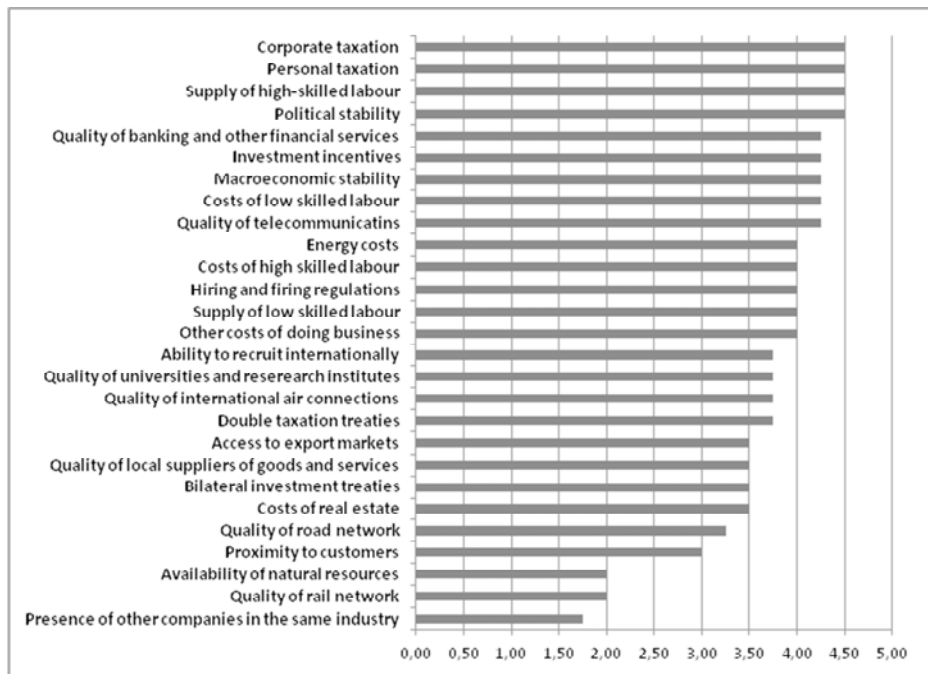
Source: author's own survey

Figure 5: Perceived importance of location factors in Macedonia – services sector

### 3.3. The perceived importance of locational factors from the perspective of both vertical and horizontal type of affiliates

Most of the theoretical and empirical studies emphasise that the preferences with respect to the location factors depend of the type of the investment - *vertical or horizontal* one (Dunning, 2000), (Markusen, 2002), (Carr, 2002). Taking this into account we have performed further analyses taking into account the type of the FDI. 9 of the 13 foreign affiliates, participants in our survey were of horizontal type. This fact also suggest that the horizontal type of FDI dominates in Macedonia as it is a case in the world as a whole (although in absence of official statistical data in Macedonia further research should be made with this respect covering larger sample of respondents).

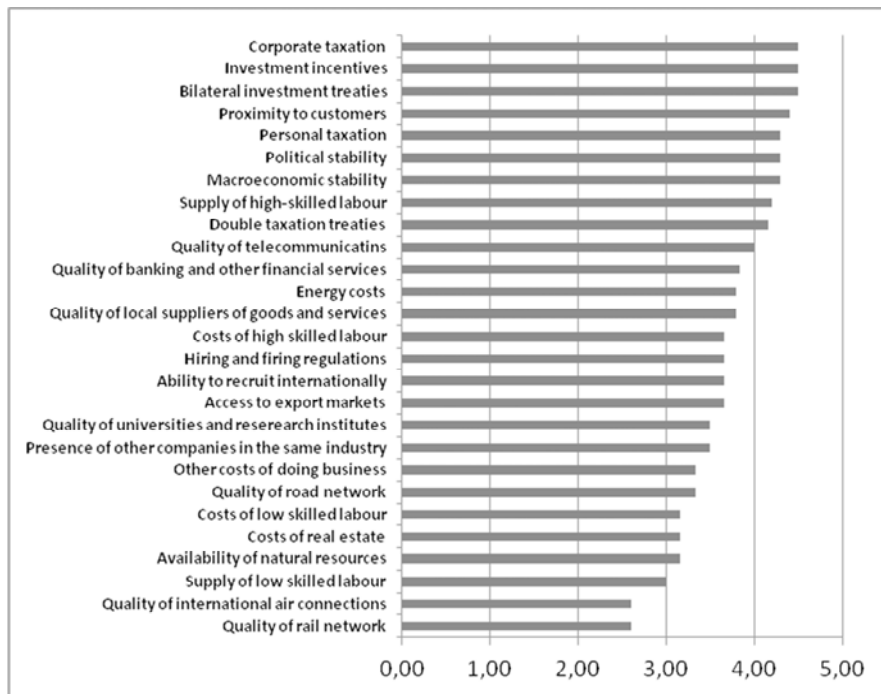
For the *vertical type* of foreign affiliates the most important location factors were the corporate taxation, political stability and supply of high-skilled labour. The macroeconomic stability and investment incentives are also regarded as important determinants. High importance is given also to the costs and supply of low-skilled labour as well as the hiring and firing regulation. Energy costs and other costs of doing business have medium to high importance for the vertical type of companies. The proximity to local customers is regarded as one of the less important factors.



Source: author's own survey

Figure 6: The importance of the locational factors from the perspective of the vertical types of foreign affiliates in Macedonia

For the *horizontal type* of companies the most important location factors were the corporate taxation, investment incentives as well as the proximity of the local customers. Taking into account the fact that this type of affiliates is market-oriented it was expected that the proximity of the local customers will be considered as one of the most important locational factors. The macroeconomic and political stability are also regarded important determinants. The bilateral investment agreements and double tax treaties have higher importance for this type of companies compared to the vertical type. In addition, the supply of high-skilled labour is amongst the important location determinants, whereas the costs for low-skilled labour is considered less important factor.



Source: author's own survey

Figure 7: The importance of the locational factors from the perspective of the horizontal types of foreign affiliates in Macedonia

In the table-4 below are presented the results of the ranking of seven locational factors as per their importance for the participants in the survey. Namely, the executives were asked to rank the seven factors with scores from 1- less important to 7- extremely important.

Table 3

Ranking of seven locational factors as per their importance for the foreign affiliates in Macedonia (1- less important; 7- extremely important)

Location factors	Perceived importance of the factors – average results	Perceived importance of the factors – horizontal type of affiliates	Perceived importance of the factors – vertical type of affiliates
Costs of labour	2	2	3
Other costs of doing business	7	5	5
Supply with high-skilled labour	4	3	4
Tax incentives	5	6	6
Access to the local market	3	7	1
Macroeconomic and political stability	6	4	7
Proximity to the home country	1	1	2

*Source: author's own survey*

It is evident that tax incentives and other costs of doing business are regarded factors of high importance for both the vertical and horizontal type of companies with scores of 6 and 5 respectively. However, the access to the local market was the most important locational factor for the horizontal type of companies, whereas the same was less important for the vertical type of companies.

### 3.4. Factor-barriers in Macedonia

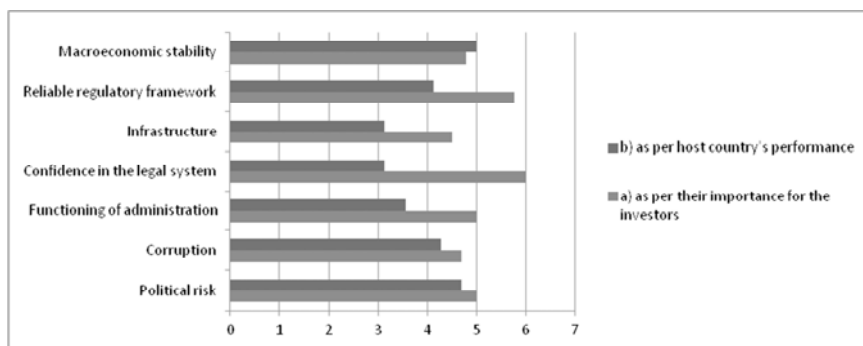
For the purposes of creating a successful policy of attracting foreign direct investments the host-countries should assess not only the attracting factors, but also the factors that represent barriers for the foreign investors. With aim to assess the factors that represent barriers to the foreign investors in Macedonia, the participants in the survey were asked to rank seven factors- barriers as per their importance for their businesses in Macedonia. Furthermore, with the survey we also wanted to identify how well Macedonia performed on the identified barriers, i.e. to identify the “gap” between the importance of a given factor-barrier and country’s performance regarding the same factor. This was done by comparing the score assigned to the importance of a factor-barrier and the score assigned for the country’s competitiveness regarding that factor.

Table 4

Assessment of the factor-barriers: a) as per their importance for the investors (1 – not important; 7 – extremely important) and b) as per host-country performance (1 – low performance; 7 – extremely good performance)

Types of barriers	a) as per their importance for the investors	b) as per host country's performance
Political risk	5	4,7
Corruption	4,7	4,28
Functioning of administration	5	3,57
Confidence in the legal system	6	3,14
Infrastructure	4,5	3,13
Reliable regulatory framework	5,77	4,14
Macroeconomic stability	4,8	5

Source: author's own survey



Source: author's own survey

Figure 8: Gap between factor's importance and country's performance

Based on the results of the survey the most important factors-barriers in doing business in Macedonia from the investor's perspective are the confidence in the legal system and the reliability of the regulatory framework. The important factor-obstacle is also identified the functioning of the administration. The infrastructure has been assessed as less important factor-obstacle in doing business. What is especially important and worrying for Macedonia as a host-country is the fact that the most negative gap score was identified in cases of factors of the highest importance for the investors. Namely, the country's

performance in such cases was below investor's expectations. From the other hand, according to the participants in the survey Macedonia performed well in respect to factors – macroeconomic stability and political risk.

#### 4. CONCLUSION

The results of the conducted survey reveal differences in investor's preferences depending of the investor's business sector and investor's type of investment (vertical or horizontal). *Overall results* show that corporate taxation is considered as the most important locational factor for the foreign investors in Macedonia. Other important factors include: investment incentives, personal taxation and political stability. The most important locational factors for the *resource-based companies* are considered: the corporate taxation, investment incentives and access to export markets, whereas for the *manufacturing companies* are the energy costs, the corporate and personal taxation. Political and economic stability as well as the quality of telecommunications are regarded as particularly important by foreign affiliates in the *services sector*.

For the *horizontal type* of companies the most important location factors were the corporate taxation, investment incentives as well as the proximity of the local customers. For the *vertical type* of foreign affiliates the most important factors were the corporate taxation, political stability and supply of high-skilled labour.

Based on the results of the survey the most important *factors-barriers* in doing business in Macedonia from the investor's perspective are the confidence in the legal system and the reliability of the regulatory framework.

#### REFERENCES

Carr, D., Markusen, J., Maskus, K., (2002), *Competition for Multinational Investment in Developing Countries: Human Capital, Infrastructure and Market Size*, prepared for the Center for Economic Policy Research (CEPR) and National Bureau of Economic Research (NBER) Conference, International Seminar on International Trade (ISIT) Challenges to Globalization, 24–25 May 2002, p. 385

Dunning, J., (2000), "The eclectic paradigm as an envelope of economic and business theories of MNE activity", *International Business Review*, 9, (Amsterdam: Elsevier Ltd), p. 185-190

Markusen, J., Ekholm, K., (2002), *Foreign Direct Investment and EU-CEE Integration*, a background paper for the conference "Danish and International Economic Policy" held at the Institute of Economics, University of Copenhagen, 23-24 May 2002,

UNCTAD-WAIPA, (2007), *Worldwide Survey of Foreign Affiliates*, (New York and Geneva: UNCTAD)

## APPENDIX

Table 1

Perceived importance of location factors – by group of countries

Factor	All countries	Developed	Developing SEE/CIS	
Macroeconomic stability	4.34	4.50	4.30	4.21
Political stability	4.33	4.17	4.47	4.07
Quality of telecommunications	4.27	4.46	4.21	4.14
Costs of high-skilled labour	4.26	4.40	4.15	4.43
Supply of high-skilled labour	4.21	4.46	4.09	4.23
Corporate income taxes	4.08	4.39	3.86	4.36
Quality of banking and other financial services	4.04	4.25	3.98	3.93
Investment incentives	3.95	3.91	3.96	4.00
Attitude towards foreign investors	3.95	4.00	3.93	3.93
Hiring and firing regulations	3.93	4.09	3.81	4.15
Double taxation treaties	3.89	4.21	3.61	4.23
Quality of international air connections	3.86	3.83	3.96	3.50
General costs of doing business	3.81	3.80	3.73	4.07
Quality of local suppliers of goods and services	3.80	3.92	3.74	3.86
Access to export markets	3.79	3.68	3.87	3.69
Quality of life	3.75	3.74	3.84	3.43
Quality of universities and research institutes	3.74	3.82	3.78	3.50
Energy costs	3.74	3.58	3.72	4.07
Quality of road network	3.72	3.74	3.65	3.93
Bilateral investment treaties	3.68	3.71	3.52	4.15
Proximity to sophisticated customers	3.60	3.86	3.60	3.21
Presence of other companies in the same industry	3.60	3.61	3.56	3.71
Quality of housing	3.60	3.42	3.66	3.64
Ability to recruit internationally	3.51	3.61	3.52	3.27
International schools	3.48	3.38	3.52	3.50
Costs of real estate	3.40	3.38	3.30	3.85
Personal taxation	3.38	3.65	3.18	3.64
Costs of low-skilled labour	3.32	3.50	3.06	4.00
Quality of international sea links	3.25	2.37	3.79	2.73
Supply of low-skilled labour	3.23	3.22	3.12	3.73
Availability of natural resources	3.19	2.50	3.41	3.38
Quality of rail network	2.82	2.72	2.74	3.14
Number of respondents	96	25	57	14

Source: UNCTAD-WAIPA, (2007), *Worldwide Survey of Foreign Affiliates*, (New York and Geneva: UNCTAD), Annex Table 1, p. 11



***Dr. sc. Magdalena Tondeva Pavlovska***

Viši porezni savjetnik  
PricewaterhouseCoopers dooel, Skopje  
E-mail: magdalena.pavlovska@mk.pwc.com

**RANGIRANJE LOKACIJSKIH DETERMINANTI PREMA  
VAŽNOSTI ZA STRANE INVESTITORE – PREGLED*****Sažetak***

*Cilj rada bio je, na temelju analiziranja rezultata izvršenih istraživanja i svog istraživanja, pridonijeti identifikiranju relevantnih lokacijskih determinanata koje utječu na investicijske odluke multinacionalnih kompanija. Korištenjem metodama upitnika u radu izvršeno je istraživanje s ciljem otkrivanja percepcije inozemnih investitora u Makedoniji. Rezultati istraživanja sa strane UNCTAD-a pokazuju da su u svijetu kao najvažnije lokacijske determinante percipirane makroekonomska i politička stabilnost, kvalitet telekomunikacija, pokrivenost i trošak visoko-kvalificirane radne snage, korporativni porezi kao i kvaliteta bankarskih i ostalih financijskih usluga. Analiza percepcije inozemnih investitora u Makedoniji pokazuje da je od najveće važnosti korporativno oporezivanje, zatim politička i makroekonomska stabilnost, osobno oporezivanje i investicijske olakšice. Naknadna analiza po djelatnostima i tipovima inozemnih ulaganja (vertikalna ili horizontalna) pokazuje raznolikosti u pogledu smještanja čimbenika.*

***Ključne riječi: inozemna izravna ulaganja, lokacijske odluke, determinante lokacijskih odluka, vertikalna i horizontalna ulaganja.***

***JEL klasifikacija: F21, F23***

