# ACTIVITY OF FOREIGN CAPITAL-OWNED ENTERPRISES IN POLAND – IS IT REALLY EMBEDDEDNESS SO FAR? THE CASE OF ŁÓDŹ METROPOLITAN AREA (POLAND)

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**Abstract:**

*This paper depicts the level of international capital flows attractiveness in Łódź Metropolitan Area in Poland and identifies the key attractiveness' factors in the context of potential (or only hypothetical?) features that can decide about embeddedness of large, foreign capital-owned companies. From the point of view of the every territory's aspiration to build its long-term competitive advantage, it is worth considering whether it is better for a region to be a "container" of cost-minimizing resources for foreign capital-owned enterprises or to offer a well developed environment, enhancing the innovative potential of both territory and its companies. A questionnaire-based research among foreign capital-owned companies having their subsidiaries located in the Łódź Metropolitan Area and employing more than 50 workers, has been conducted. It has revealed that among FDI location factors in this territory, cost factors definitely prevail. At the same time, one can observe relatively low importance of pro-efficiency location factors (except some elements of local educational offer), which could determine the potential for innovativeness of regional economy. Therefore, in Łódź Metropolitan Area and probably in most of other Polish regions, a change of the character of pro-investment policy should be considered. This "policy switch" shall be directed towards building more efficient environment for stronger economic ties at the regional level. This also means a need of strengthening the institutional framework for innovation by human resources' development or development of research capacities of the public sector, which seems to be the most important aim for creating a potential for an effective "marriage" of global R&D network of TNCs with regional innovation system.*

**Keywords:** embeddedness, territorialisation, foreign direct investment, location factors, regional development, Łódź Metropolitan Area

## Introduction

It is surpising that in the age of globalization, cities and regions remain more and more open for FDI investment. However, in order to build a long-term competitive advantage for a destination, it is worth considering whether it is better for a territory to be a "container" of cost-minimizing resources for foreign capital-owned enterprises or to offer a well developed environment, enhancing the innovative potential of both territory and its companies. In the first case, regions can count on relatively quick profits in the form of growing employment rates and catalyzing their growth thanks to investment multiplier effect. However, the price they pay is not only a reduced tax income, as regions are trying to almost override each other in the level of tax credits, but also a risk of resources' exploitation and then quick delocalization in case of losing cost advantages, which recently are melting very quickly. The alternative strategy can be thus based on the processes of embeddedness, shifting the focus from low costs toward efficiency-based.

The aim of this paper is to depict the level of attractiveness of one Polish region for international capital flows and identify its key attractiveness factors in the context of potential features that can decide about embeddedness of large foreign capital-owned companies. Poland is an example of a European country, which takes advantage of accelerating FDI inflows. However, besides that low costs of labor or tax incentives are still the most popular location factors, it is worth verifying whether there is a shift towards more sophisticated ones, based on regional and local mutual interdependencies, called in regional economics as" embeddedness" or "territorialisation".

The paper consists of seven parts. The first one refers to theoretical concepts, describing what embeddedness means and what are its most important elements. It is followed by the picture of FDI flows to Poland with the special emphasis on the region of Łódź and Łodź Metropolitan Area. The third part explains main methodological points of research described here. The next three parts present main results in the context of FDI location factors in Łodź Metropolitan Area, the role of its local *milieu* in building the conditions for embeddedness and investment attractiveness of this region compared with other parts of the world respectively. Conclusions, policy recommendations and possibilities of future research prospects close this study.

## 1. Foreign direct investment and territories – mutual interdependencies and embeddedness as a condition for building territorial sustainable competitive advantage

Nowadays, in the age of globalization, more and more cities and regions encourage international capital flows, transferred in the form of foreign investment. The latter is usually being analyzed as so-called foreign portfolio investment, when an enterprise from one country is undertaking less than 10% of shares in enterprise operating in another country, and foreign direct investment (FDI), when the number of undertaken shares or voting rights exceeds 10%, which implies a long-term strategy of controlling resources located in another country in order to economize them in the international or even global scale [1, p. 8]. From the regional economics point of view, FDI is considered to have much more important impact on the place where it is located. Striving to achieve long-term income, it implies the existence of long-term relationships between two units of the same company operating in different states as well as between subsidiary or branch of foreign direct investor and its new local / regional economic milieu (e. g. local contractors, business partners, buyers, authorities, local workforce, etc.).

However, as many authors argue, (Dunning [2], UNCTAD [3] and Edwards [4, p. 165-184]), a "classic" analysis of FDI on local and regional economies (growing employment rate, regional multiplier effect, technological modernization of local economy, etc.) touches the issue of its most quickly perceived effects, leaving the problem of its impact on long-term term regional competitiveness rather unresolved.

Meanwhile, researchers working on issues of the role of space and territories in the economy are often underlining that, what really decides about the success of regions, is the ability of not only attracting but maintaining capital. Among them one can mention A. Markusen [5] about "sticky places", J. Rifkin [6] about the role of territorial ties in today's world of hypercapitalism with its logic of "pure action and temporality", A. Scott and M. Storper [7], J. Hardy [8] about "cathedrals in the desert" or Doremus *et al.* [9] about the myth of global corporation. Today, a debate whether FDI brings more benefits than costs, cannot be simplified. The growing number of companies operating abroad organizing international value chains as well as in global knowledge and technology transfer, is indisputable. What is really important for cities and regions, is the way in which they adapt to conditions shaped by the activities of transnational corporations and to what extent they will be able to benefit or even influence changes in the global space of capital movement.

These aspects are partially reflected by the concept of embeddedness. According to B. Domański et al. [10, p. 18], this term can be defined as entirety of factors that decide about durability of investment in specific place. Among factors of embeddedness of a multi-branch company one should mention (N. Etlinger [11], M.Sokołowicz [12]): specificity of branch, stability of both global and local environment of every enterprise's activity, managers' attitudes translated into their location decisions, the effect of the choice between a dilemma "cost-strategy vs. quality-based-strategy", economic policy on every territorial level (local, regional, national, international) and, what remains really important – quality of local business environment (*milieu*). As M. Sokołowicz suggests [12, p. 8], these elements, should be interpreted not only in economic, but also sociological, political or more broadly – institutional context. The essence of this phenomenon defines a situation in which the company at the same time profits from and participates in the creation of so-called specific resources of a given region; these resources cannot either be “copied” in another territory or duplicate in different place, as the latter is too expensive or impossible.

The problem of embeddedness uses a similar concept of territorialisation, based on the assumption that it is a territorial proximity which contributes to the process of strengthening institutional framework supporting business activities (see: A., Rallet, A., Torre [13, p. 49]. Co-location of enterprises (also economic rivals) in a local production system is a classic example of external economies, where the success of one company does not remain unnoticed by the others [P. Maskell, 14]. This concept refers directly to the idea of spillover effects [Marshall, 15], treated as an intangible but very important source of spatial externalities.

It should be noticed that in contemporary economy, enterprises operating in the international scale rarely or never act separately from other economic entities and are bounded by the need of cooperation between suppliers, subcontractors or other business partners. That is why enterprises are under strong influence of three different structures, having different logic, dynamics, objectives, time horizon and criteria of rationality. According to C. Dupuy and J. P. Gilly [16], these variables are: 1. industrial group, which formulates the general policies and strategies and whose internal structure affects the degree of autonomy of the company; 2. industrial sector, specifying the technical and technological solutions and 3 territory where a given enterprise is located and which has its own organization and development policy. In other words, a single company participates simultaneously in the development of industrial group it belongs to, technology and region (territory).

Capital, especially financial one, is by its nature, a-territorial. One basic condition of regional competitiveness is to “tie” this capital by offering specific resources, enhancing its territorialisation processes. This kind of strategy seems to be the only rational response to the potential risk of delocalization of foreign capital. From the regional policy point of view, cities and regions should change their strategies of attracting foreign capital from cost to efficiency- and innovation-based. As A. Nowakowska *et al.* [17] underlined, among actors that may play an important role in this process are: the authorities of territorial units (municipalities, cities, regions), the boards of special economic zones and other public and quasi-public agencies, responsible for stimulating the development processes.

## 2. Foreign direct investment in Poland with particular emphasis on the region of Łódź and Łódź Metropolitan Area

The Central and Eastern European Countries, despite their growing role as FDI recipients, receive a relatively small percentage of global capital flows. In the years 1990-2008, the average share of CEE countries in total FDI flows stood for 2.7%. In this period of time, one can notice growth, but these flows have also been characterized by annual fluctuations (table 1). However, the position of Poland as a recipient of FDI among the other countries of CEE, remains significant. In this country between 1990 and 2008, there was an increase in FDI inflows from $ 88 million to $ 16.5 billion. The average of Poland’s participation in the FDI inflows to that part of the continent was thus 29.2%.

**Table. 1.** The inflow of FDI into Central and Eastern European (CEE) Countries compared to other parts of the world (in billions of American dollars) in the period 1990-2008

| | 1990 | 2000 | 2005 | 2008 | 1990 | 2000 | 2005 | 2008 |
|---|---|---|---|---|---|---|---|---|
| | **billions of USD** | | | | **%** | | | |
| World | 207 273 | 1 381 675 | 973 329 | 1 697 353 | 100.0% | 100.0% | 100.0% | 100.0% |
| European Union | 97 309 | 680 729 | 498 440 | 503 453 | 46.9% | 49.3% | 51.2% | 29.7% |
| Euro zone | 62 934 | 501 774 | 258 787 | 290 440 | 30.4% | 36.3% | 26.6% | 17.1% |
| Developing Countries: Asia | 22 660 | 148 561 | 213 751 | 387 828 | 10.9% | 10.8% | 22.0% | 22.8% |
| Developing Countries: America | 8 926 | 98 355 | 77 070 | 144 377 | 4.3% | 7.1% | 7.9% | 8.5% |
| Developing Countries: Africa | 2 805 | 9 737 | 38 222 | 87 647 | 1.4% | 0.7% | 3.9% | 5.2% |
| **CEE Countries** | **646** | **22 397** | **47 668** | **66 726** | **0.3%** | **1.6%** | **4.9%** | **3.9%** |

Source: Own composition, based on database of United Nations Conference on Trade and Development (UNCTAD), available at: http://unctadstat.unctad.org/ReportFolders/reportFolders.aspx, accessed 20.11.2010.

Poland remains the largest recipient of FDI not only as one of the CEE countries but also compared to most developed countries of the European Community (table 2). In 2008, Poland attracted 16.5 billion U.S. dollars, which put the country in sixth place just after France, Great Britain, Spain, Belgium and Germany.

**Table 2.** FDI Inflows to the largest European Union countries in the period 1990-2008

| | 1990 | 1995 | 2005 | 2008 | 1990 | 1995 | 2005 | 2008 |
|---|---|---|---|---|---|---|---|---|
| | **billions of USD** | | | | **%** | | | |
| France | 15629.2 | 23673.2 | 84951.3 | 117509.8 | 19.8% | 23.8% | 18.7% | 27.0% |
| Great Britain | 30461.1 | 19969.4 | 176006.1 | 96938.7 | 38.6% | 20.1% | 38.7% | 22.2% |
| Spain | 13294.3 | 8070.5 | 25020.2 | 65539.4 | 16.9% | 8.1% | 5.5% | 15.0% |
| Belgium | n/a | n/a | 34370.5 | 59679.9 | n/a | n/a | 7.6% | 13.7% |
| Germany | 2962.4 | 12024.7 | 47440.1 | 24938.5 | 3.8% | 12.1% | 10.4% | 5.7% |
| **Poland** | **88.0** | **3659.0** | **10249.0** | **16533.0** | **0.1%** | **3.7%** | **2.3%** | **3.8%** |
| Austria | 653.0 | 1904.5 | 10784.5 | 13551.1 | 0.8% | 1.9% | 2.4% | 3.1% |
| Romania | n/a | 419.0 | 6482.9 | 13305.0 | n/a | 0.4% | 1.4% | 3.1% |
| Denmark | 1132.2 | 4328.9 | 8916.2 | 10921.4 | 1.4% | 4.4% | 2.0% | 2.5% |
| Czech Republic | n/a | 2561.8 | 11602.8 | 10730.6 | n/a | 2.6% | 2.5% | 2.5% |
| Bulgaria | 4.0 | 90.4 | 3922.7 | 9204.7 | 0.0% | 0.1% | 0.9% | 2.1% |
| Hungary | 553.8 | 5103.5 | 7705.8 | 6514.4 | 0.7% | 5.1% | 1.7% | 1.5% |
| Portugal | 2901.5 | 689.7 | 3929.6 | 3532.0 | 3.7% | 0.7% | 0.9% | 0.8% |
| Slovakia | n/a | 2587.1 | 2428.6 | 3413.9 | n/a | 2.6% | 0.5% | 0.8% |
| Estonia | n/a | 201.5 | 2942.8 | 1968.9 | n/a | 0.2% | 0.6% | 0.5% |
| Lithuania | n/a | 72.6 | 1032.0 | 1815.1 | n/a | 0.1% | 0.2% | 0.4% |
| Slovenia | n/a | 150.5 | 587.6 | 1814.8 | n/a | 0.2% | 0.1% | 0.4% |
| Latvia | n/a | 179.6 | 713.4 | 1425.6 | n/a | 0.2% | 0.2% | 0.3% |
| Netherlands | 10515.5 | 12304.0 | 47791.4 | -3492.1 | 13.3% | 12.4% | 10.5% | < 0 |
| Ireland | 621.9 | 1442.9 | -31689.3 | -20030.0 | 0.8% | 1.5% | < 0 | < 0 |
| **Total** | **78816.9** | **99432.9** | **455188.0** | **435814.7** | **100.0%** | **100.0%** | **100.0%** | **100.0%** |

Source: Own composition, based on database of (UNCTAD), available at: http://unctadstat.unctad.org/ReportFolders/reportFolders.aspx, accessed 20.11.2010.

Poland is a middle sized country and the spatial distribution of foreign direct investment remains uneven. Disparities in foreign investors' activity can be observed among Polish regions (the highest level of administrative units in Poland with established self-government bodies, corresponding to NUTS2 level[1]), but one can observe a radical concentration of FDI in Polish metropolitan areas. It should be noted that metropolitan areas are the most preferred

[1] http://epp.eurostat.ec.europa.eu/portal/page/portal/nuts_nomenclature/introduction, accessed 16.11.2010

locations for transnational corporations' branches and subsidiaries in most countries. For example, in the nineties of 20th century, half of all TNCs from Austria were concentrated in Vienna. In Japan, 4 of every 5 their representations were located in Tokyo metropolitan area [18, pp. 63-65]. In this context, the study agrees with the ESPON analyses, which underlined five basic functions of metropolitan areas[2] and that their openness to FDI contributes to strengthening four of them: hosting subsidiaries and branches of transnational corporations (decisive function), forces the investment in infrastructure, increases its international accessibility (communication function), contributes to strengthening the innovative capacity of the area through technology transfer (function of knowledge creation) and strengthens the development of tourism infrastructure.

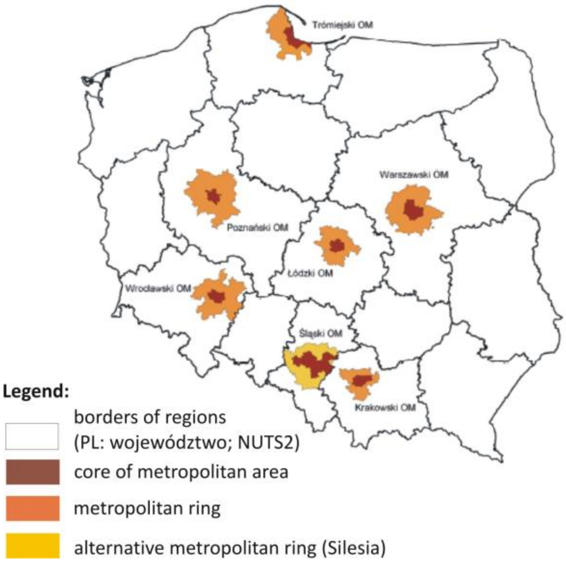
Polish metropolitan areas, despite not being delimitated as separate administrative units, constitute functional regions playing more and more important role in settlement structure of Poland as economic and social "growth poles". According to ESPON analyses, in Poland there are 8 metropolitan areas (MEGAs: Metropolitan European Growth Areas), one of which (Warsaw) is classified as MEGA2 (potential metropolis) and 7 (Gdańsk with Gdynia, Szczecin, Poznań, Wrocław, Łódź, Katowice with the rest of Silesia conurbation and Kraków) were classified as MEGA3 (weak metropolis) (ESPON [20, p. 12]). In elaborations considering delimitation of Polish metropolitan areas conducted on the national level, the territorial units of metropolitan areas' classification do not correspond directly with NUTS classification. Polish MEGAs are "composed" indirectly as a structure consisting of usually two or more NUTS3 statistical areas, when one refers to the core city and the other refers to suburban areas surrounding it. They also correspond to LAU1 and LAU2 level of European nomenclature of territorial units and so, metropolitan areas are structures consisting of Polish departments (in Polish called "powiat", LAU1) and in some cases communes (Polish "gmina", corresponding to LAU2 as basic self-government territorial units) (see map 1). From the research point of view, this blurred delimitation of metropolitan areas as functional regions must be treated as a disadvantage, since it provides difficulties in collecting statistical data concerning FDI flows in Poland, where the "lowest" level of territorial disaggregation refers to NUTS2 (never to NUTS3, LAU1 or LAU2) and even this level offers very limited statistics.[3]

[2] 1. Administrative (metropolis as place of location of government and self-government institutions). 2. Decisive (metropolis as the seat of subsidiaries and representative offices of transnational corporations). 3. Communication (metropolis as a major transport hub). 4. Knowledge and innovation (metropolis as a place conducive to the creation of innovation). 5. Tourism (the metropolis as an attractive tourist product of international significance). See ESPON [19, p. 12].

[3] In Poland, there are two institutions responsible for collecting data concerning FDI: National Bank of Poland (for the purposes of accounting national balance of payments) and Central Statistical Office (which however excludes the sector of finances from its analyses). Because of problems with obtaining reliable data on regional (NUTS2) level, National Bank of Poland has stopped doing it a few years ago, collecting it only on national level. On the contrary, Central Statistical Office continues to collect FDI data on regional level but stresses the methodological limitation of this practice. FDI data on regional level is, in fact, collected by the address of company's registration. In other words, when Polish subsidiary of TNC is formally registered in Warsaw (usually main office) but has also branches in other Polish regions (e.g. factories), it appears in official statistics only once, in Warsaw. Because most foreign-owned companies decide to register main office in the capital of Poland, it leads to overrepresentation of FDI in the region of Warsaw (PL: mazowieckie).

It should be also noted, that the study of Polish Information and Foreign Investment Agency is, to some extent, helpful in the analysis of FDI flowing to specific locations in the country. Although the Agency does not perform an exhaustive study, it registers every foreign-owned company that invested in Poland more than 1 million U.S. dollars, by exact place of its every investment project location. By the end of December 2008, altogether 1.536 foreign investors from 42 countries were included in the List of Major Foreign Investors in Poland [22, p. 3]. These investors were in control of 2.083 corporations registered in Poland. The most numerous group were investors from Germany (366), the Netherlands (169) and the United States (161). Companies from these three countries made up to 45% of the investments studied by the Agency.

**Map 1.** Potential major metropolitan areas in Poland – proposal of delimitation




Source: M. Smętkowski *et al.* [21, p. 73]

According to Polish Central Statistical Office, at the end of 2008, 867 enterprises with foreign capital shares were operating in Łódzkie region, which placed it on the 8th position after other Polish regions (table 3). From this number, one could observe 217 enterprises employing 50 to 249 employees as well as 61 large companies (employing over 250 persons). Total employment in this companies counted for 68.781 (around 12% of all persons employed in all enterprises on the region), where 52.369 worked in enterprises employing 50 to 249 employees and 16.412 in enterprises employing over 250 persons[4].

It should be noted that while in terms of number of companies with foreign capital, the region of Łódź is in good position, close to the national average, in terms of their growth dynamics it comes only to twelfth place. In 2008, in the region of Łódź they were about 25% more companies with foreign capital than in 1999 (compared to average growth rate of 57% in Poland) – see Table 3.

**Table 3.** Dynamics of the number of companies with foreign capital, by province in 1999-2008

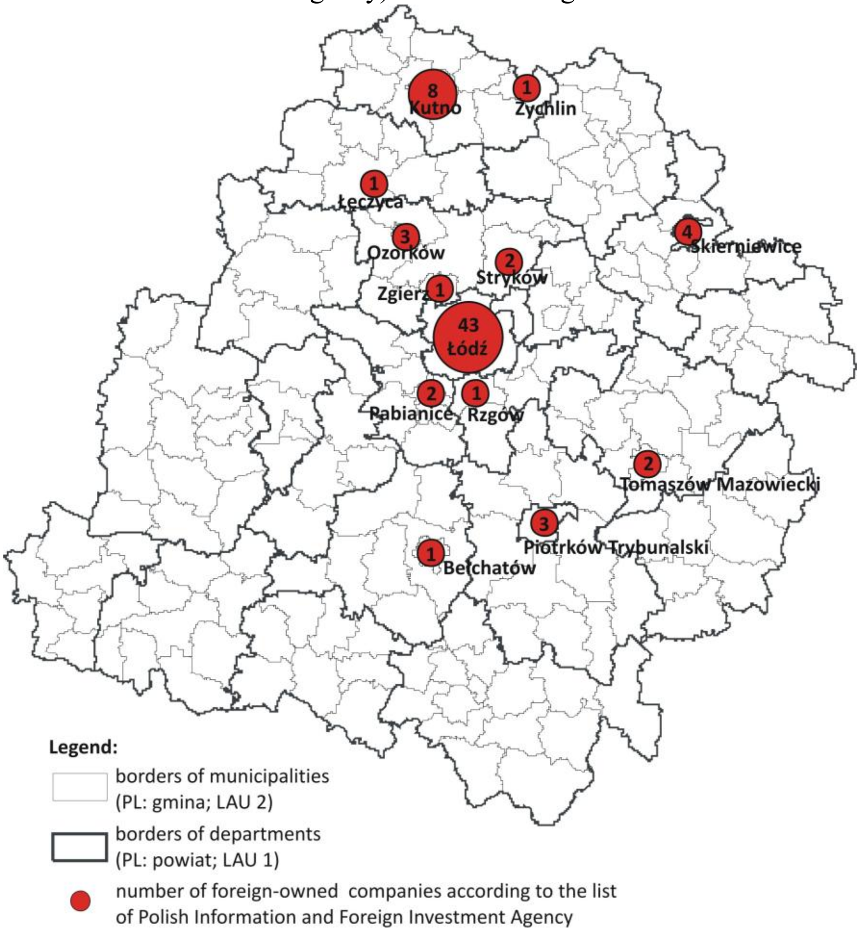
| Region (PL: „województwo") – NUTS2 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 1999-2008 (1999=100) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| mazowieckie (Warsaw) | 3278 | 3791 | 4306 | 4306 | 4913 | 5026 | 5530 | 5934 | 5930 | 7622 | 233 |
| podlaskie | 57 | 92 | 92 | 87 | 88 | 95 | 100 | 102 | 114 | 127 | 223 |
| wielkopolskie | 1258 | 1256 | 1253 | 1262 | 1314 | 1345 | 1385 | 1436 | 1488 | 1923 | 153 |
| małopolskie | 834 | 902 | 794 | 745 | 813 | 844 | 920 | 1092 | 1110 | 1251 | 150 |
| podkarpackie | 222 | 244 | 246 | 260 | 244 | 251 | 271 | 298 | 294 | 317 | 143 |
| dolnośląskie | 1556 | 1587 | 1522 | 1593 | 1675 | 1758 | 1831 | 1962 | 2048 | 2112 | 136 |
| lubuskie | 576 | 648 | 604 | 570 | 592 | 637 | 682 | 718 | 793 | 776 | 135 |
| kujawsko-pomorskie | 400 | 403 | 378 | 392 | 420 | 433 | 457 | 485 | 520 | 537 | 134 |
| śląskie | 1437 | 1408 | 1452 | 1491 | 1618 | 1624 | 1652 | 1708 | 1861 | 1882 | 131 |
| pomorskie | 960 | 1002 | 1024 | 1002 | 902 | 943 | 1041 | 1127 | 1190 | 1216 | 127 |
| **łódzkie** | **693** | **690** | **666** | **671** | **653** | **699** | **726** | **792** | **808** | **867** | **125** |
| zachodniopomorskie | 1005 | 1023 | 961 | 955 | 963 | 993 | 1074 | 1166 | 1163 | 1216 | 121 |
| lubelskie | 275 | 294 | 289 | 297 | 299 | 308 | 332 | 336 | 329 | 329 | 120 |
| warmińsko-mazurskie | 254 | 270 | 287 | 296 | 287 | 278 | 268 | 265 | 247 | 291 | 115 |
| opolskie | 426 | 449 | 445 | 426 | 419 | 412 | 420 | 428 | 459 | 462 | 108 |
| świętokrzyskie | 169 | 185 | 150 | 135 | 171 | 170 | 148 | 166 | 161 | 164 | 97 |
| **POLAND** | **13400** | **14244** | **14469** | **14488** | **15371** | **15816** | **16837** | **18015** | **18515** | **21092** | **157** |

Source: Own study, based on data obtained from Polish Central Statistical Office, 2010.

[4] Data obtained from Polish Central Statistical Office, 2010.

A relative weak position of the region of Łódź does not mean that areas of one of the highest activity of subsidiaries and branches of big foreign capital-owned enterprises have not occurred here. The analysis of Polish Information and Foreign Investment Agency shows that Łódź Metropolitan Area (formally a part of the region of Łódź), is one of the most important destinations of foreign capital in Poland. Besides Łódź[5] , the capital of the region, one can also mention other destinations, like: Kutno, Skierniewice, Bełchatów, Tomaszów Mazowiecki i Piotrków Trybunalski (see map 2). However, the biggest number of investment is located undoubtedly in Łódź Metropolitan Area.

**Map 2.** Largest foreign investors (according to the list of Polish Information and Foreign Investment Agency) in the Łódź region in 2008

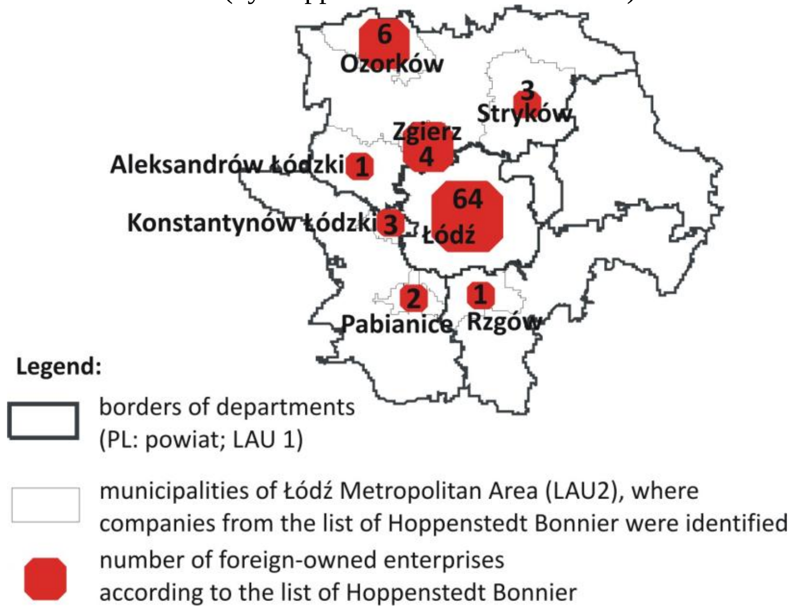



Source: Own study, based on data obtained from Polish Information and Foreign Investment Agency, 2009.

An important concentration of foreign investment is also revealed by an analysis of commercial databases on the activities of companies in Poland. For example, data from Hoppenstedt Bonnier database, popular in the countries of Central and Eastern Europe, showed that in July 2009, there were 84 entities with foreign capital, employing 50 or more people, having their headquarters in all municipalities of Łódź Metropolitan Area.

[5] Since the adoption of the strategy for economic development of Łódź, prepared by McKinsey and Company (strategy based of attracting FDI to the city), it has recorded a rapid inflow of foreign direct investment, mainly large companies. According to data from the Investor Assistance Center of the City Hall of Łódź, by the end of 2008, foreign-owned companies invested nearly 2.9 millions of U. S. dollars in the city, while forthcoming investment plans exceeded the amount of the next 1 million.

**Map 3.** Foreign investors employing 50 or more employees in the Łódź Metropolitan Area in 2009 (by Hoppenstedt Bonnier database)




Source: Own study, based on data obtained from Hoppenstedt Bonnier database.

Of this number, 64 entities were located in the capital of region and the core of Metropolitan Area – Łódź. In addition, six companies were registered in Ozorków (in one of subzones of Special Economic Zone), 4 the came from Zgierz, and 3 from Stryków. Also, 3 companies were registered in Konstantynów, 2 in the city of Pabianice, 1 in Aleksandrów and 1 in Rzgów. What is very discernible is almost total lack of activity of subsidiaries of foreign capital-owned companies in the eastern part of Metropolitan Area (see map 3).

## 3. Methodology of examining territorialisation (embeddedness) of business processes of transnational corporations in Łódź Metropolitan Area

To verify if one can observe the embeddedness processes in Łódź Metropolitan Area, a research had been conducted between 20.11.2009 and 31.01.2010[6]. The main aim of this research was to examine if among advantages and incentives that Łódź Metropolitan Area offers to foreign direct investors, one can identify those which not only decide about comparative cost advantage of this region but also about its long-term competitiveness, based on region's specific resources. The quantitative research was based on interviews made among foreign capital-owned companies having their subsidiaries located in the Łódź Metropolitan Area and employing more than 50 workers.

The sampling frame was a commercial database of firms – Hoppenstedt Bonnier Company Database, where 97 entities meeting above criteria have been identified. After further verification it came out that only 84 met these criteria in reality (map 3), of which 21 companies agreed to participate in the research (24.7%). In consequence, one was able to make 19 computer aided personal interviews (CAPI) as well as 2 computer aided telephone interviews (CATI) were additionally made. 17 interviewers were located in Łódź, and one each in the case of: Ozorków, Pabianice, Zgierz and Stryków. Among those who did not participate in the study:

- one missed to contact with 16 companies due to the lack of validity of contact data;
- 35 companies refused to participate in the study without giving reasons;
- 6 companies refused to participate in the study, despite an earlier interview appointment;
- 7 companies failed to participate in the study as a result of continuous postponing the date of the interview.

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[6] This study was a part of research project financed by Polish Ministry of Science and Higher Education (grant no. N N114 051335, *The processes of integration and disintegration in the Łódź Metropolitan Area*, led by Professor Aleksandra Jewtuchowicz).

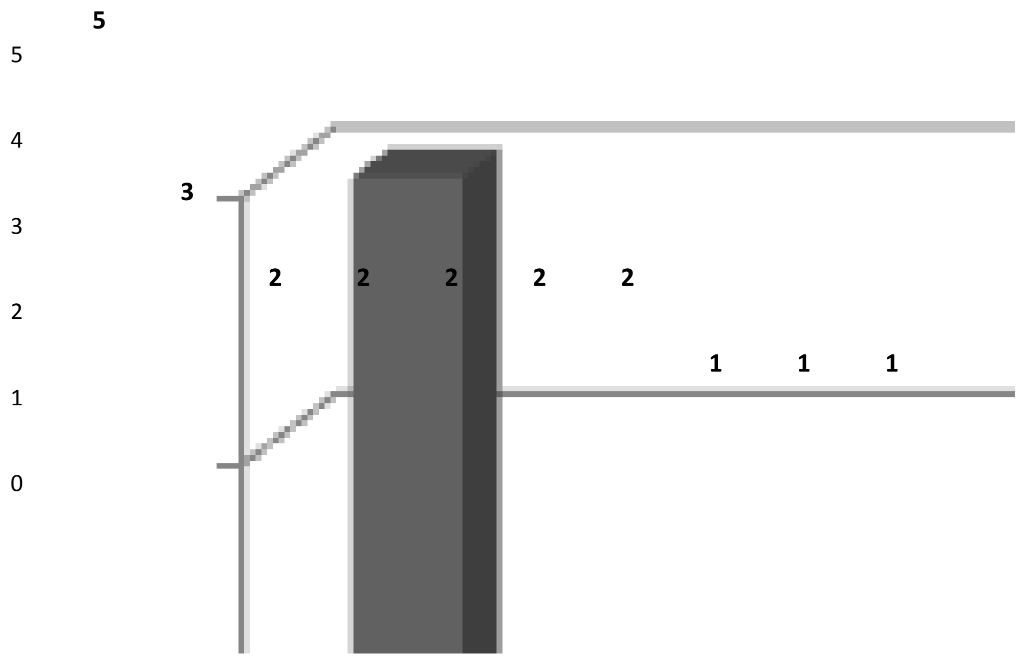
The respondents in the survey were mainly the managers of subsidiaries of foreign capital-owned companies (board members in 11 cases). In other situations, answers were given by a person occupying a different position than board member but the one identified as competent in the range of asked questions (e.g. assistant manager, chief accountant, director of marketing, company's spokesman).

The interview questionnaire consisted of five parts. The first one contained basic information about the company (sector of activity according to NACE, durability of activity in the Łódź Metropolitan Area, the capital structure, the number and location of the branches abroad). The second part was devoted to study the location factors and the verification of the significance of these factors over time. The next section contained questions about local public support for the location of foreign direct investment; questions were about the type and scope of support from public sector institutions (town hall departments responsible for investor service, the Regional Investor Assistance Centre of the Region of Łódź, the Polish Information and Foreign Investment Agency, Łódź Special Economic Zone) and the main forms of contacts between these agencies and investors.

Another part of the interview was devoted to the strength and barriers to cooperation between branches of big transnational companies investigated and the local *milieu*, in the context of the level of their current and potential future embeddedness. The last group of questions concerned the assessment of the competitive advantages of Łódź Metropolitan Area in relation to other Polish regions, as well as whether there is a competition or cooperation among municipalities of metropolitan area in the process of attracting FDI (the context of integration of pro-investment policies in the region).

The structure of industries represented by investigated companies remains quite dispersed. Among the surveyed companies, 6 were producers of textiles, wholesale trade was represented by 4 while 2 of them came from pharmaceutical industry. Other sectors (one each) were represented by individual entities among them: non-metallic mineral products, chemicals, rubber and plastics, electrical equipment, disposal collection, treatment and recycling, retail trade, software and consultancy services, employment outsourcing).

**Figure 1.** The structure of the surveyed companies by country of origin of capital




Source: Own study.

Among the surveyed companies, the largest number of them had their roots in Germany (5) and the Netherlands (3). Two companies came respectively from: Denmark, France, Italy and Switzerland and the United States. It is worth noting that only two companies came from outside the European Economic Area.

The structure of location of the other international branches of companies reveals the same pattern as the structure of the origin of capital. Among the 21 surveyed entities, 5 of them refused to determine the structure of the whole group in the international capital network. In other cases, 5 companies declared that beyond Poland, they have one delegation and in other cases they declared having 2, 3 or more agencies abroad. One can identify the domination of capital ties with European Economic Area countries (mainly Western Europe), however some enterprises also have their branch offices in such countries such as the United States, China and Turkey.

## 4. Location factors of the branches of foreign capital-owned enterprises in the Łódź Metropolitan Area

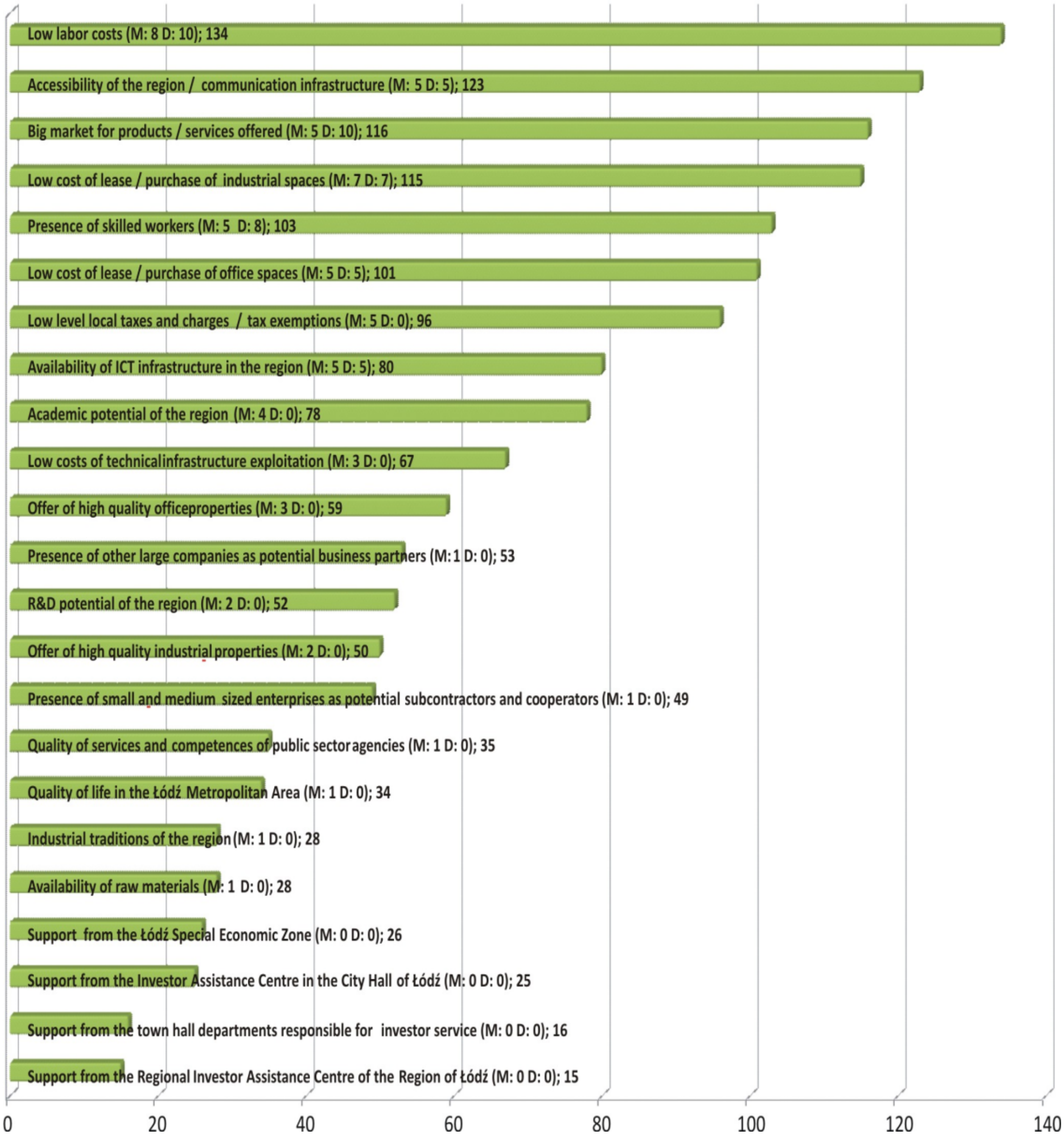
It should be noted that the list of location factors indicated by corporate representatives in Łódź Metropolitan Area is dominated significantly by those concerning diminishing costs of activity. For instance, among most popular factors of investment attractiveness were: low labor costs (1$^{st}$ position) and low costs of leasing, renting or buying a property (4$^{th}$ position). Another important group of location factors considered spatial availability of the region (communication assuring minimization of transportation costs) and subsequently, big market as well as the level of local taxes and fees (see figure 2).

Location factors influencing the efficiency and long-term competitiveness (academic potential, R&D potential, the presence of suppliers assuring backward and forward linkages as well as knowledge transfer), with the exception of the presence of skilled workers in the region, are much less likely to be indicated by foreign capital-owned companies. It should be also noted that the significance of such location factors as the presence of potential suppliers or research potential was rated by the respondents at a lowest level (usually no more than 3 on a 1-10 scale), which is reflected by low values of such measures of central tendency like median and dominant (see figure 2).

Additionally, a particular attention must be paid to the fact that the surveyed large foreign-owned companies did not indicate the pro-investment support from the public sector as an important location factor. This can be confirmed by low significance rates given to such responses as: the support of the Łódź Special Economic zone, municipalities, or the Regional Investor Assistance Centre of the Region of Łódź. Also, a quality of service and competences of public sector entities revealed during contacts concerning various administrative procedures, have been also low-rated by surveyed companies. These observations raise questions about the sense and the effectiveness of pro-investment policies, especially taking into account still high the income tax reliefs offered to investors in Polish SEZs. In Łódź Special Economic Zone, investors employing 50-249 workers can expect the advantage of the public aid in the form of 60% income tax exemption, while those who employ more than 250 workers can expect the advantage of the public aid in the form of 50% income tax exemption (by 2017, in accordance with European Commission regulations).

There was a low correlation between the date of start-up of foreign capital-owned companies' subsidiaries in Łódź Metropolitan Area and the level of their satisfaction with the support from pro-investment policy agencies. However, it should be noted that among those who took part in the survey were almost no top-brands of large companies with foreign capital, treated by such institutions as strategic ones (e. g. ABB, Bosch-Siemens Group, Dell, Procter and Gamble). It is anyhow symptomatic that these world-brand corporations having their branches and subsidiaries in Łódź and the rest of Łódź Metropolitan Area, consistently refuse to participate in such studies. This fact remains contradictory to the declarations of their representatives about openness to cooperation (e.g. with local universities).

**Figure 2.** Business location factors in Łódź Metropolitan Area, as indicated by the respondents




Letters in brackets refer to significance of a given location factors, rated on 1-10 scale, where M is a median and D is a dominant. The number at the end of each indication shows the sum of the responses rated on a 1-10 scale.
Source: Own study.

The surveyed companies indicated that they are not experiencing a situation in which factors that had a significant influence on their location choices at the moment of starting-up in Łódź Metropolitan Area, have not met their expectations, and have been a motive for the decision to relocate. On the other hand, among the factors that had a significant impact on the choice of location and are still important and determine today's decision to continue their activities in region, companies mention mainly low labor costs (this factor was indicated by 16 out of 21 surveyed companies), as well as low prices of properties. It prejudges about the fact that companies with foreign capital operating in the Łódź Metropolitan Area, mainly apply cost strategies, leaving aside efficiency-based and pro-innovative strategies.

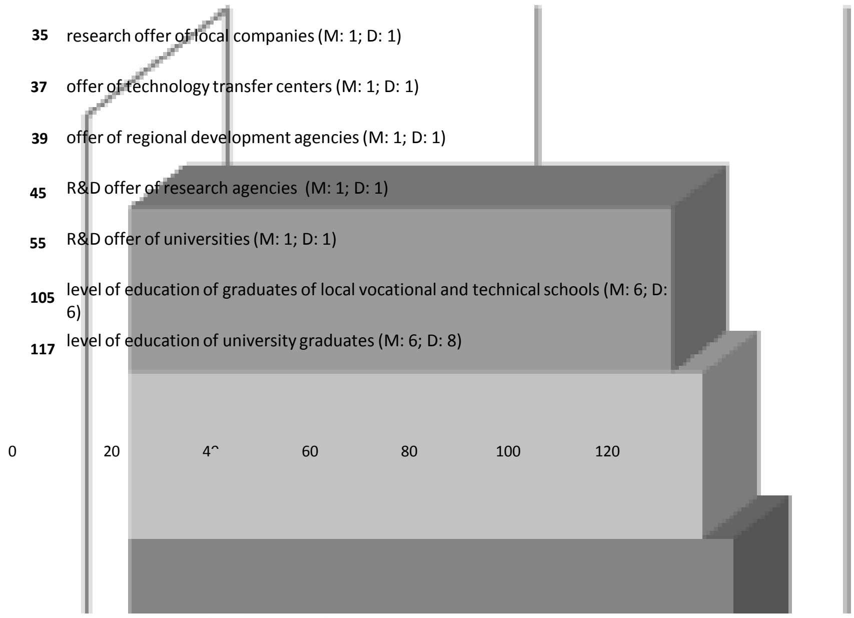
## 5. The attractiveness of the local business *milieu* as a condition of terrritorialisation

The analysis of the effects of presence of such regional actors in Łódź Metropolitan Area like universities, vocational schools, R&D institutions or regional development agencies, from the point of view of their aptness for foreign capital-owned companies, leads to the conclusion that what really matters for the latter, it is an educational offer of high schools and universities.

Respondents strongly emphasized that in terms of investment attractiveness of the region, what they valued the most is the level of education of graduates from local universities as well as from local vocational and technical schools (see figure 3).

The offer and the activity of other institutions have been assessed more than twice less. This leads to the conclusion that the offer of R&D institutions in the region (both private and public ones) is not the subject of major concern for corporate representatives. In this context it should be noted that among the competitive advantages of Łódź Metropolitan Area, cost advantages continue to dominate to the detriment of regional innovation potential.

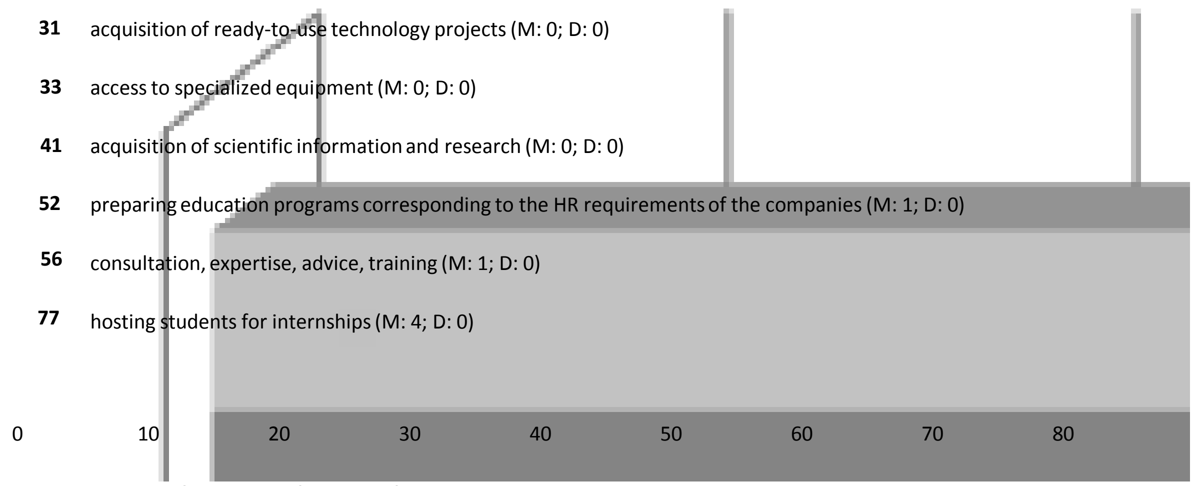
**Figure 3.** Evaluation of the aptness of the offer of institutions operating in Łódź Metropolitan Area in the eyes of corporate representatives




Letters in brackets refer to significance of a given indication, rated on 1-10 scale, where M is a median and D is a dominant. The number at the beginning of each indication shows the sum of the responses rated on a 1-10 scale.
Source: Own study.

Going further, hosting students for internships is still a dominant area of cooperation between TNCs and regional universities. This confirms that the strongest relationships of cooperation relate to the educational offer of Łódź Metropolitan Area, whereas foreign capital-owned companies benefit from the expertise and training to much lesser extent. What is more, opening by local schools universities learning programs that correspond to the requirements of employers is still not a common practice in the region.

**Figure 4.** Areas of cooperation of foreign capital-owned companies with the institutional environment in Łódź Metropolitan Area




Letters in brackets refer to significance of a given indication, rated on 1-10 scale, where M is a median and D is a dominant. The number at the beginning of each indication shows the sum of the responses rated on a 1-10 scale.

Source: Own study.

Especially the last of these areas of cooperation should be considered as a positive direction of building strong ties between subsidiaries and branches of TNCs with their local *milieu*. However, this conclusion should be treated with extreme caution due to the fact that, despite its indication as one of important areas of cooperation, the respondents judged it extremely low on the 1-10 scale (see Figure 4).

**Table 4.** The barriers of cooperation of foreign capital-owned companies with the institutional environment in Łódź Metropolitan Area

| **Barrier** | **Sum of the responses on a 1-10 scale** | **Median** | **Dominant** |
|---|---|---|---|
| No information about the functioning of such institutions, their offer and opportunities for transfer of new technologies, ideas, solutions | 82 | 3 | 0 |
| Limited opportunities to adapt R&D offer to the needs of business | 82 | 2,5 | 0 |
| The poor quality of the offer of these institutions | 76 | 1 | 0 |
| Lack of confidence to these institutions | 45 | 1 | 0 |
| Too small number / lack of such institutions in the city of Łódź / Łódź Metropolitan Area | 43 | 1 | 0 |
| The reluctance of these institutions to cooperate | 43 | 1 | 0 |

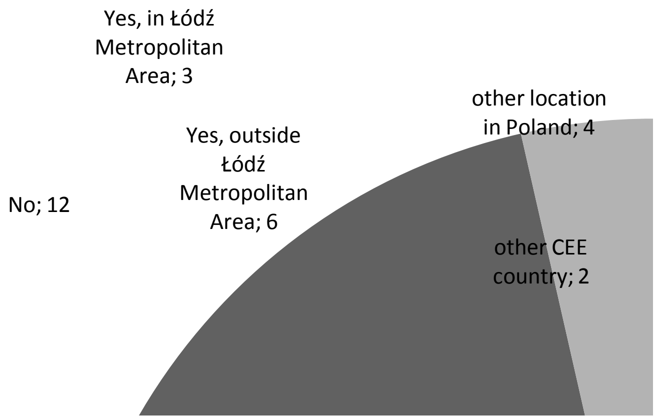
Source: Own study.

The surveyed companies indicated that the primary barriers of cooperation with the institutional environment in Łódź Metropolitan Area were: lack of information about their offer as well as their inability to adapt this offer to the business needs. This creates an image of regional institutions that do not have the ability to commercialize their inventions, especially in the case of cooperation with foreign capital. In terms of mutual relations, the offer of R&D institutions has been assessed relatively well because such barriers of cooperation as distrust, dislike or too small number of R&D institutions have been pointed out much less frequently.

## 6. Investment attractiveness of Łódź Metropolitan Area compared with other regions

More than a half of surveyed companies (15) unambiguously declare that they have not considered an alternative location to Łódź Metropolitan Area. Among the remaining 6 entities, one noted declarations about considering leaving this location. Among these companies, 4 related to other towns in Poland while 2 related to other country in Central and Eastern Europe.

**Figure 5.** Location patterns of economic activity alternative to Łódź Metropolitan Area




Source: Own study.

In case of alternative location outside Poland, respondents indicated Romania and Ukraine, countries offering mainly lower costs of labor. What has caused choosing Poland at the very end instead of these countries, it was a higher quality of institutional environment for economic activities, an important factor at the national level. However, it is difficult to identify relevant factors of "institutional" competitiveness at the regional level. Only a few indications of concerning delocalization strategies make it impossible to generalize this conclusion to the entire surveyed group of enterprises.

## 7. Conclusions

In relation to the dominant location factors in Łódź Metropolitan Area, cost factors definitely prevail (among them: relatively low labor costs, low property prices, localization of the region in the center of the country conducive to minimizing transport costs, and finally tax credits in the Łódź Special Economic Zone and selected municipalities). At the same time, one can observe relatively low importance of pro-efficiency location factors, which could determine the potential for the innovativeness of the regional economy. Furthermore, the research has not revealed significant changes in the perception of location factors in time. It is worrying that the lowest-rated factors are those related to the support from those pro-investment policy agencies in the region. What can be regarded as a positive phenomenon,is the fact that investors rate the level of education and skills of local workers as very high. On the other hand, however, an R&D offer of the region is still not the subject of major concern of surveyed companies. To sum up, among the most important competitive advantages of Łódź Metropolitan Area, cost advantages continue to dominate with the detriment of regional R&D and innovative potential.

In the context of the processes of embeddedness, the strongest cooperation ties are observed between surveyed companies and regional high schools, vocational schools and universities, mainly in the field of education. Subsidiaries and branches of companies benefit from the regional expertise to a much lesser extent. It means that areas of cooperation of the most innovative character (access to scientific information and R&D potential, specialized equipment as well as the acquisition of ready-to-use technology projects) are rarely appreciated by the surveyed companies. Among the basic barriers of cooperation with the local *milieu*, the surveyed companies underline the lack of information about innovative institutions in the region and the limited possibilities of adaptation of the effects of R&D activity to the business needs (problems with their commercialization).

In the context of the above research results, some policy recommendations can be indicated. Bearing in mind that despite high tax exemptions, a public aid and support of public bodies is not highly appreciated by investors, a change of the character of pro-investment policy should be considered. This policy switch can be directed towards building more efficient environment for stronger economic ties at the regional level. These ties should concern both relations with universities (where first best practices of such cooperation can be already identified in Łódź Metropolitan Area), but also with R&D institutions and, what seems to be most important, with local small and medium sized enterprises, which could play the role of subcontractors and business partners for TNCs. It must be indicated that, in the age of global capital flows, SME support policy should not be in opposition to pro-TNCs policy, but should be treated as a complementary one. One tool of such a "combined" policy can be bounding the size of investment incentives and support from the public sector offered to foreign capital-owned companies with the level of share of local SMEs in their structure of suppliers, customers and business partners. Among the latter, one can mention a creation of the platform of knowledge exchange about the potential business partners.

Another important way of building long-term competitiveness of regional economy should be based on enhancing innovative potential of Łódź Metropolitan Area. Strengthening the institutional framework for innovation by human resource development or development of research capacities of the public sector seems to be the most important aim for creating a potential for an affective "marriage" of global R&D network of TNCs with regional innovation system (see UNCTAD [23, p. 202) and Liang [24, p. 171]). This development goal seems to be a strategic one for all Polish regions and metropolitan areas, especially when taking into consideration the big gap between gross expenditure on R&D (GERD)[7] of this country with both EU average and one of "Europe 2020" strategy goals (the value of GERD in EU 3% by 2020) [26].

The research undertaken and described in this paper does not undoubtedly affect all aspects of foreign capital-owned enterprises' activity in Łódź Metropolitan Area. Among problems met during its execution one can mention the relatively low number of enterprises that agreed to participate in research, especially world-brand companies operating in the region. The enlargement of the size of the research sample in order to reach satisfying level of statistical significance, is one of the biggest challenges of the future research. In order to better assess the approach to public support from foreign investors' point of view, it would be interesting to compare the opinions expressed by companies operating in Łódź Special Economic Zone, with opinions formed by companies who did never take advantage of it. Finally, a bigger sample could allow to verify correlations between firms' strategies and their age, sector, level of innovativeness, etc., as well as to make international and interregional comparisons, especially that there is a lack of such studies in the literature. However, analyses of this kind would exceed the scope and financial capabilities of this study; the author hopes that the approach presented here can contribute, at least to some extent, to a number of regional case studies already described by economists, geographers and regionalists.

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