THE IMPACT OF CORPORATE EMBEDDEDNESS OF TRANSNATIONAL COMPANIES ON LOCAL ECONOMIC DEVELOPMENT: CASE STUDIES FROM HUNGARY

Viktória Józsa
PhD candidate (Regional Science),
György Enyedi Doctoral School of Regional Sciences,
Szent István University
viktoria.jozsa@gmail.com
Páter Károly St., 1, H-2100 Gödöllő, Hungary

József Káposzta
Prof. h.c. Dr. of Economics,
Associate professor, Dean,
Institute of Regional Economics and Rural Development,
Faculty of Economics and Social Sciences,
Szent István University
kaposzta.jozsef@gtk.szie.hu
Páter Károly St., 1, H-2100 Gödöllő, Hungary

Henrietta Nagy
PhD in Management and Business Administration,
Associate professor,
Institute of Regional Economics and Rural Development,
Faculty of Economics and Social Sciences,
Szent István University
nagy.henrietta@gtk.szie.hu
Páter Károly St., 1, H-2100 Gödöllő, Hungary

Abstract. Reindustrialisation and the European Industrial Renaissance are strategic priorities of the current EU programming period (2014-2020). In parallel with the declining significance of national economies, meso (local) level is becoming more and more powerful. Key actors of reindustrialisation are transnational companies (TNCs) and their locations, the specific settlements. Transnational companies are influential allies of local and regional communities from several aspects, such as society, economy, science, governance, natural and built environment.

The scientific approach is based on the basic concepts of evolutionary economic geography and recent innovation models. Research papers generally focus on one or two aspects of embeddedness, for example innovation, social or institutional embeddedness.

The current paper examines embeddedness from a complex, multidimensional perspective that has not yet been applied in this context. It presents a new model of the embedment process and a framework of corporate embeddedness based on case studies. By the application of a process-
based, project-level, case study methodology in the empirical part, the research findings shed the light on the dynamics and selective nature of the embedment process that has been rarely addressed and analysed before.

The authors consider that transnational companies have become decisive actors in the development path designation of their host locations and they can contribute significantly to the factors of city success and sustainable local economic development through their embedding.

**Key words:** transnational companies, territories of meso level, local economic development, corporate embeddedness, management, efficiency.

**Introduction.** In parallel with the declining significance of national economies, the meso (local) level is becoming more powerful. The factors of localization decisions have been re-classified and classical location theories are modified or replaced with new concepts, with a special focus on research and development (R&D) sites. Now more than ever, Europe needs industry and industry needs Europe [6].

There is a tough competition between CEE countries and other parts of the world for foreign R&D sites of high-value-added industries. Internationalization of production is pushing the internationalization of R&D centres also due to the advantages of spatial proximity. Public support from the EU (European Structural and Investment Funds, ESIF) and national governments, especially in the Central and Eastern European (CEE) region, are focused on economic development and research and development and innovation (RDI) in the EU programming period 2014-2020 that is expected to form the basis for further economic growth after 2020. TNCs are clearly the net beneficiaries of globalization and the examination of their behaviour and investment and development decisions could generate spillover effects and deeper insights that could generate policy implications.

Corporate embeddedness is a relatively new field of research and a phenomenon that raises several questions and generates an ongoing debate between both practitioners and researchers. It has several definitions [1; 7; 12; 14]. Some scholars insist that transnational companies are the slaveholders of Modern Age, while some others argue a mindset change and a subsequent behavioural change resulting the process of corporate embedding.

The research was based on the empirical observation that transnational (especially German-owned) companies (TNCs) in Hungary have started to move from the status of mass production entities to strategic organisations that are influencing the life of their host community.

This process is motivated primarily – but not extensively – by their economic interests with the aim of seeking and exploiting locational advantages. Our approach sees corporate embeddedness as one kind of a local level answer to the challenges of globalisation as – accepting the theses of new economic geography – their embeddedness in the local environment could yield competitive advantage through increased exploitation of the different kinds of ‘relatedness’ [2]. This advantage is not exclusively of an economic character, but also manifests itself in the attraction of higher value-added activities.

We examined the case studies of three transnational companies in Hungary through their subsequent development decisions and activities, in relation with their host context. I adapted the Quintuple (Penta) Helix innovation model [3] as a basis, which is a developed form of the Triple Helix model [5], and analysed the relationship and embeddedness of the examined companies within the (1) local economy; (2) society; (3) science; (4) government; and (5) the natural and built environment.

Regarding the international state-of-the-art, embeddedness is a hot topic in international literature. Going back to its origins in sociology, embeddedness in social science is characterized by the dependence of a phenomenon (an individual, an organization, a set of relationships or a sphere of activity) on its environment. Embeddedness is a multidimensional concept that requires contributions from different scientific disciplines such as international business studies, economic sociology, innovation studies and new economic geography, without being exhaustive. The majority of studies in the field focuses on one or two dimensions of embeddedness and has a theoretical character. Several authors have examined small and medium sized enterprises (SMEs) or multinational companies (MNCs), some others analysed case studies with a geographical or sectoral focus.

As Johannisson et al stated in 2002, “there is an increasing concern for the notion of ‘embeddedness’ of economic activity; yet the conceptualisation of the concept and its operationalization remain underdeveloped” [8]. In the last decade, embeddedness
has stayed in the forefront of research though there is
still room for further study, especially in the
understanding of the triggers and processes and the
modelling and measurement of the phenomenon.

Kramer and Diez also reinforced a decade later
that ‘despite the increasing importance of this matter,
from both a research and a management perspective,
there is still an insufficient understanding of the regional
embeddedness of multinational enterprises [10]. As
there was no available and widely accepted model-
based descriptive and analytical framework – beyond that, in Hungary the existence of corporate
embeddedness has not been established and the
definition has not been formulated yet – it was
necessary to elaborate a new methodology.

Methodology. Research objects were large
multinational companies – as formal institutions – and
we examined them in their local environment in a
timeframe of 25 years between 1990 and 2015. The
three Hungarian case studies were Audi Hungaria
Motor Kft. in Győr, Mercedes Benz Manufacturing
Kft. in Kecskemét and Robert Bosch company group
in Miskolc [9].

The research methodology was a combination
of case study analysis [17] and process research [11]
focusing on empirical data collection and qualitative
analysis. We followed a qualitative, inductive,
empirical and company-based approach. In contrast
to previous extensive research literature on local municipalities, higher education institutions and bridge
organisations; we examined the processes from the
companies’ perspective. We applied a mixed
methodology that included desk-based research and
primary research in the form of both questionnaires
\(N = 176\) in Miskolc City and semi-structured
interviews \(N = 10\) in all three examined cities.

Regarding the composition and characteristics
of the population sample in Miskolc City it can be
concluded that gender representation was balanced.
Respondents under the age of 25 and between
the age of 26 and 50 were slightly underrepresented, while
the age group above 65 was slightly under-
represented in parallel (compared to national data of
the last census in 2011). The majority of the sample
belonged to an active age group of the population.
Regarding educational levels, respondents with higher
education were significantly over-represented in the
sample, which could be the result of the sampling
methodology (snowball sampling using the individual
social networks of participants). Regarding residential
status, the sample was optimal and the same applies
to current employment with an equal representation
of corporate (21 % at large companies and 28 % at
small and medium size companies, SMEs) and other
employees.

The selected case studies represent well the
establishing, settling and embedding process of German
companies in Hungary. We used a multiple case study
methodology and during the selection of the case
studies we aimed to ensure heterogeneity in several
aspects. The complex set of selection criteria of the
case studies were the following: different
characteristics in geography, logistics, history, economic
structure, traditions and society; different core-
periphery status (though all examined settlements are
second-tier cities); strong agglomeration/surrounding
settlements; county capitals and prioritized centres with
a population between 100,000 and 200,000 inhabitants;
significant experience in Local Economic Development; the presence of both OEM (Original
Equipment Manufacturer) and Tier 1 (direct or first
level supplier) companies; German majority ownership
but with different ownership structures; different stages
of the development process and time horizon.

We adapted the Quintuple (Penta) Helix
innovation model [3] as a basis, which is a developed
form of the Triple Helix model [5], and analysed the
relationship and embeddedness of the examined
companies within the (1) local economy; (2) society;
(3) science; (4) government; and (5) the natural and
built environment. We examined the embedment
process as a contemporary phenomenon in a real
life context with a geographical focus on Hungary in
order to eliminate spatial (multi- or inter-country)
dimensions. The territorial level of the analysis is the
meso level, we analysed local (LAI2) level emerging
practices and processes.

Regarding the definition of a transnational
corporation we refer to the United Nations
Conference on Trade and Development (UNCTAD)
as “Transnational corporations (TNCs) are incorporated or unincorporated enterprises
comprising parent enterprises and their foreign
affiliates. A parent enterprise is defined as an
enterprise that controls assets of other entities in
countries other than its home country, usually by
owning a certain equity capital stake” [16].

Research Results. Firstly, we examined the
general attitude of the local citizens towards large
companies and corporate embedding in the framework
of an attitude survey. The primary research
conducted was non-representative and had a sample
size of 176 respondents in Miskolc as local inhabitants
for the questionnaire and 10 interviewees from all
three examined cities (Győr, Kecskemét and Miskolc)
for the personal semi-conducted interviews.
large companies are the slaveholders of modern age': The general attitude of the respondents and the interviewees was moderate (using a 1–5 scale). It has to be pointed out that the most marked difference in opinion between the age groups occurred in this question, as the youngest respondents (under the age of 25) evaluated the statement as the least valid, and the elder generation (above the age of 65) as the most valid.

The opinion of the respondents under the age of 25 (Millennials, or Generation ‘Y’) about large companies is more positive than the average of the sample, as 13 % are already employed by a large company, 56 % were positive about being employed in the future, while 30 % are not willing to be employed by a large company in the future either. The ratio of the same negative attitude in the average of the sample for male respondents was 45 % and 55 % for female respondents. The main keywords (attributions) mentioned by Generation ‘Y’ respondents on large companies were the increase in the quality of life, development, competitive revenue, good opportunities and international career, together with inflexibility, rigid regulations, robot work and intense labour turnover.

The evaluation of corporate embedding process of large companies into the local environment resulted in the appearance of a similar pattern of positive and negative attitudes. There was a significant correlation between the assessment of corporate embedding and the current workplace, as the respondents currently employed by large companies assessed the degree of corporate embeddedness as higher compared to those working at other organisations. Thus, research results show that the assessment of corporate embeddedness by the local population is strongly dependent on the specific personal perceptions and life situation.

As a summary, it can be stated that based on the results of the primary research, corporate embedding is an existing phenomenon according to the views of both the respondents and the interviewees. The research subjects were highly likely to mark corporate embedding as an existent and ongoing process (94 % of respondents of the questionnaire and 100 % of the interviewees).

Secondly, we examined the definition of corporate embedding and the elements of the host context for corporate embedding. Here we refer to the dimensions of the Penta Helix companies as we defined the elements of the host context as the (1) local economy; (2) society; (3) science; (4) government; and (5) the natural and built environment. When the definition of corporate embedding was raised as a question, 60 % of the local respondents stated that they could provide a definition and they also managed to describe the phenomenon. That is a very high proportion considering both the complexity of the topic and the average ratio of responses for elaborate answers. Without receiving any orientation or prompts for this exercise, the respondents mentioned in their definitions the economic dimension in 62 cases, the social dimension in 37, the scientific dimension (including – dual – secondary and higher education) in 17, the local government dimension in 11 and the natural and built environment in 11 cases.

These results exceeded expectations and should be highlighted given that neither the Hungarian scientific literature nor the media have examined and discussed the phenomenon in the past years in detail and with a wide audience. Thus, the topic could be considered as under-researched.

As a summary, it can be concluded that the five examined elements (belonging to ‘internal’ and ‘external’ spaces [13] are appropriate for the definition of the host context of corporate embedding, and respondents perceived embedding in all the five dimensions, though in different degrees.

Thirdly, we examined the impact of corporate embeddedness on the factors of city success and sustainable local economic development. The settlement of Audi in Győr was one of the “early birds”, coming soon after the change of the regime in 1993 as a brownfield investment; Robert Bosch established two production facilities in Miskolc in 2001 (power tools) and 2003 (automotive); and Mercedes-Benz published its investment decision in 2008. The latter were greenfield investments.

Starting with the factors of city success, we exploited the definition of ten elements as factors of city success of Enyedi [4]. We listed the ten factors and asked the interviewees to rank from 1 to 5 the impact of corporate embeddedness on each factor (whereas 1 equaled to no influence and 5 to very high, decisive influence).

Out of the ten factors of city success, the interviewees of the semi-conducted interviews concluded that corporate embeddedness of transnational companies contribute the most to the following five factors: flexible economic structure; high value-added activities; knowledge-based production; increasing employment and revenues; strong innovation capabilities. In case of the other five factors, interviewees also strengthened the positive impact of transnational companies in the following order: structure of local society; strong and
significant international relationships; efficient handling of conflicts and problems; attractive cultural, natural and built local environment and decision-making site based on subsidiarity. On the other hand, research results also showed that there are also some negative effects occurring for example the increased impact on environment, bottlenecks in traffic, segregation, overcrowding of public spaces, increased lodging fees for students and employees, and commuting.

Finally, we examined the impacts of corporate embeddedness of transnational companies from both the company’s and the settlement’s perspective. The impacts of corporate embeddedness for the company were defined as localization effects and the impacts for the settlement as urbanization effects. We identified both positive (advantages or opportunities) and negative (disadvantages or threats) impacts for both actors and defined common positive and negative impacts also.

Localisation effects: Identified positive impacts for the company were the better workforce supply; higher quality of life for executives, quicker integration; higher quality of life for executives, quicker integration; higher quality of life for executives, quicker integration; strengthened labour attractivity; developed supplier network; more profit, better competitiveness, and ‘tailoring the environment to company needs’. Identified negative impacts for the company were: ‘narrow’ base and limitations in labour supply; getting ‘too close’ to politics; higher opportunity for corruption; increased wages; competition; higher fixed capital; lower relocation flexibility; and is it worth it? pay-off of investments in the longer term.

Urbanisation effects: Identified positive impacts were the targeted infrastructure development; image-forming, upgrading power, increased dynamism; operation of the large company as ‘investment magnet’; retention of skilled inhabitants; strengthened RDI competences, institutionalisation; widened local service palette, solvent local demand; appreciation of local real estates; dissemination of culture represented and requested by the company; strengthened and novel endogenous development factors; support for community development; strengthened local intellectual community, and ‘smart citizenship’. Identified negative impacts were the increased environmental impacts, bottlenecks, overcrowded public spaces, reduced liveability as city = company as a negative factor (eg.: in new location decisions for OEMs); workforce extraction from SMEs; narrowed education and RDI structure, passivity; the development of agglomeration, increased commuting, and increased segregation; and decreased resiliency in case of a sectoral shock, neglect of other actors.

Common identified positive impacts were the good image, international reputation; higher growth potential; regular information change and negotiations; and widened financial opportunities (EU funds, allowances, state aids, taxes paid).

Common negative impacts were that others are ‘copying’ the initiatives; reduced flexibility, ‘strings attached’; and the unintended interrelations, the bonding effect of institutionalization.

As a summary, it can be stated that corporate embeddedness of transnational companies has a fundamentally positive impact on several aspects of sustainable local economic development, including economic, social and environmental sustainability.

Conclusions. As a conclusion of the research we can highlight the necessity and importance of the completion of local economic development activities. The corporate embedding process requires significant resources, a distinctive mindset and commitment from all participating actors. Primary research explored the openness, interest and positive attitude of generation ‘Y’ towards transnational companies operating in their local environment, together with the relatively low ‘visibility’ of the connection between the company and the local government.

Besides, the claim for regular, institutionalised ‘platforms’ of information exchange and common thinking activities was also raised. Thus, it is recommended in relation to the host context for effective corporate embedding to: separate local economic development activities from local politics and to integrate all local political and other forces, with special respect to intellectuals; establish and maintain the platforms of regular, bilateral and multilateral communication; disseminate more effectively the local economic development actions toward local inhabitants, with special respect to millennials.

Regarding the process of corporate embedding, the research results provided strong evidence that corporate embedding is a contemporary phenomenon in Hungary, and that it has both a deepening and a widening character. The process is ‘visible’ and recognisable for the respondents of the questionnaire (inhabitants in Miskolc) and the interviewees (executives of the triple helix organisations in the three examined cities) also. The adapted Penta Helix model is suitable to define the main elements of the host context of corporate embeddedness as local economy, society, science, government and natural
and built environment. Institutionalisation in case of some elements constitutes a challenge, and even the interpretation of the phenomenon could be different. Research results underlined the conclusion of Rechnitzer [15] on the necessity to widen the Triple Helix model into the Quadruple Helix, with the involvement of the local society. However, we argue that it is time to add a fifth element – namely the natural and built environment – to the model.

Transnational companies are more and more active in their local host context and engage in a wide scale of activities other than production that contribute to both city success and sustainable local economic development. Impacts could be divided to those connected to the factors of city success and those related to urbanisation and localisation effects.

Regarding the ten factors of city success, research results strengthened the positive influence of transnational companies and their corporate embeddedness on every factor. Regarding the impacts on local economic development, company-related positive and negative effects could be identified as localisation effects and settlement-related effects as urbanisation effects. A common section could be identified also. As a conclusion, research results underlined the positive impacts of corporate embeddedness in connection to both the localisation and the urbanisation effects. They form a majority of the impacts, while some negative effects have been also identified.

Regions and settlements – locations from the viewpoint of companies – have become parts of global networks and the question is to what extent large companies could advance the development and success of a specific area and what is the level of willingness and ability of the particular area towards learning and change.

An innovative characteristic of the current research is that in contrast to previous studies, the process of embedding and the status of embeddedness was explored from the large company’s perspective through the analysis of its relationship with the host context. The local (meso) level examination of the phenomena compared to former studies focusing on the National Innovation System (NIS), Regional Innovation System (RIS) and Metropolitan Innovation System (MIS) level, should be applied in further studies. We consider that there is a very strong case for further research activities in Europe in this currently under-researched area, in which there is an outstanding potential.

Thus, we propose to further study the current and potential role of transnational companies in sustainable local economic development, including the phenomenon of corporate embeddedness. Cross-country and cross-sectoral analysis would contribute to the elaboration of ‘smarter’ policies and the introduction of more efficient, quality-based interventions that would result in the reduction of regional inequalities as well as increased competitiveness.

REFERENCES

ВЛИЯНИЕ КОРПОРАТИВНЫХ ИНВЕСТИЦИЙ ТРАНСНАЦИОНАЛЬНЫХ КОМПАНИЙ НА ЭКОНОМИЧЕСКОЕ РАЗВИТИЕ ТЕРРИТОРИИ: ОПЫТ ВЕНГРИИ

Виктория Йоста

Соискатель степени кандидата наук (региональные науки), Научная школа региональных наук имени Дьерди Эньеди, Университет Святого Иштвана
viktoria.jozsa@gmail.com
ул. им. Патера Карой, 1, H-2100, Гёделе, Венгрия

Йозеф Капоста

Доктор экономики, адъюнкт-профессор, декан, Институт региональной экономики и развития сельского хозяйства, Факультет экономики и общественных наук, Университет Святого Иштвана
kaposzta.jozsef@gtk.szie.hu
ул. им. Патера Карой, 1, H-2100 Гёделе, Венгрия

Генриетта Надь

Доктор экономики, управления и делового администрирования, адъюнкт-профессор, Институт региональной экономики и развития сельского хозяйства, Факультет экономики и общественных наук, Университет Святого Иштвана
nagy.henrietta@gtk.szie.hu
ул. им. Патера Карой, 1, H-2100 Гёделе, Венгрия


Научный подход, используемый авторами, основан на фундаментальных понятиях эволюционной экономической географии и применении современных инновационных моделей. Научные статьи, тем не менее, ориентированы на исследование только одного или двух аспектов проникновения компании, например, на инновациях, социальном или институциональном проникновении.

Данная статья исследует факт появления корпорации в регионе с комплексной, междисциплинарной точки зрения и еще в данном контексте не использовалась. Она представляет
Влияние корпоративных инвестиций транснациональных компаний

новую модель процесса внедрения компании в регион и схемы корпоративного влияния, основанного на исследованиях отдельных примеров. Посредством использования процессной, проектной, кейсовой методологии в практической части результаты исследования проливают свет на динамику и селективную природу процесса закрепления компании, который до сегодняшнего момента был мало изучен.

Авторы полагают, что транснациональные компании стали сегодня важнейшими акторами регионального развития посредством выбора места для своих штаб-квартир и тем самым они значительно влияют на успешность городов и устойчивое развитие мезо-территорий.

Ключевые слова: транснациональные компании, территории мезоуровня, местное экономическое развитие, корпоративная включенность, управление, эффективность.