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STRUCTURAL DYNAMICS OF TERTIARY ACTIVITIES IN INDUSTRIAL PARKS IN BUCHAREST, ROMANIA

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SEMA PARC industrial park in Bucharest.

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ABSTRACT: The study is an analysis of tertiarization in Bucharest, a process that tends to become dominant inside an economic system that has faced the hardships of transition and reorganization. The study deals with tertiarization inside the industrial parks in the capital city, in close connection with deindustrialization and industrial delocalization. The study highlights the forms tertiarization has taken inside those areas, former industrial platforms of the utmost importance for the industry of the Communist era. The trends in the evolution of tertiarization are analyzed in comparison as well as from the perspective of the evolution of the companies inside the three industrial parks; in addition, two scenarios for the future course of tertiarization are included.

KEY WORDS: geography, structural dynamics, tertiarization, industrial parks, Bucharest

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1 Introduction

Tertiarization can be defined as the predominant result of the major socio-economic changes, with an extremely visible impact at the level of economies that undergone transition processes (Ferrao and Domingues 1995; Peneder et al. 2003; Cuadrado-Roura et al. 2003; Hutton 2004; Sanchez-Moral et al. 2008; Genaro and Melchor 2010). Deindustrialization and tertiarization are two economic processes that interact, with the former preceding the latter and that in time have effects on the structure of economic life (Graham and Spence 1995; Montresor and Marzetti 2011). No matter what we might call them, deindustrialization or tertiarization, they will always involve a decline of the production sector and a corresponding ascension of the tertiary sector (Polèse 1988, 13) and in which culture ought to support its development (Bole 2008, 257; Merciu et al. 2011).

Post-1990 changes in the wake of the collapse of the former political system in Eastern-Central Europe brought about important structural mutations at the level of territorial systems, with the economic element undergoing the most spectacular transformations (Kovacs 1994). The economy in many areas shifted closer to the sectoral structure of the economy found in the developed countries of the European Union, relying, in most cases, on the local specificity (Kovacs 1994; Gabrielova 1996; Tammaru 2001; Gritsai 2004; Hadzic 2009; Răbonțu and Todoruț 2009; Balina and Mickevica 2012). Visible changes occurred both at the level of the industrial platforms in the big cities, Bucharest included (privatization of state enterprises, bankruptcy or gradual closure/transformation/relocation of the activities, production reconversion and, the final stage, tertiarization) and in their territorial systems (Urbanc and Breg 2005; Ianoş et al. 2009; Peptenatu et al. 2012) where economic enterprises were relocated from inside the cities or new economic enterprises emerged, benefitting from numerous competitive advantages (including the premises of the new industrial parks which replaced the old industrial platforms or relied on greenfield investments).

The principal findings of the paper concern: highlighting the conditions in which the tertiarization process occurred inside the industrial parks; analyzing the relation between deindustrialization and tertiarization in those economic areas; identifying the criteria differentiating the three industrial parks studied; delineating the scenarios on the future course of tertiarization in industrial parks in Bucharest.

2 Methodology

The analysis methods used in elaborating the present article are included in the category of quantitative and comparative methods, applied with the help of cartographic methods and through the filter of the phenomena the Romanian capitalist economy undergoes: deindustrialization, industrial relocation and tertiarization. The theory of tertiarization is interpreted using the advantages offered by the method of modelization and by submitting evolution forecasts.

The structural dynamics at the level of industrial parks was achieved with the support of statistical information at the level of CANE (Classification of the activities from the national economy) codes for the 2007–2011 time span. This statistical information was extracted from the company database (Listă firme 2012), a program containing statistical data from the Official gazette, the Finance ministry, the Trade register, the National agency for tax administration and the Insolvency bulletin. The indicators analyzed were: the evolution of the number of companies, the evolution of the number of employees, the evolution of profit and of the global turnover. For an increased relevance of the analysis, the cross-sections were drawn at the level of the three major sectors of the economy. Later on, a classification was created in terms of the intensity of the tertiarization process, measured by the complexity or diversity of the tertiary enterprises, as well as by their weight in the overall economic enterprises.

3 Results

The forms of industrial reorganization encountered are typical of the transition and adaptation to the market economy (deindustrialization, industrial relocation, decentralization, economic reconversion; Cercleux, Merciu and Merciu 2012). The goals pursued in the short run led to the transformation of major production factories into average-sized production facilities and later on to their very dissolution. In the more fortunate situations, technology upgrades were conducted, but at a limited scale, and sometimes branching off into a related field of activity or into a specialization completely different from the initial one. Under these conditions, the industry-services ratio evolved, predominantly after 2000, to the benefit of the tertiary sector, as a result of the changes brought about by the free-market economy and mainly conjoined with the rise of the number of failures in the privatization of the industry, difficulties to adapt to competition-oriented conditions or the lack of experience. The process to reorganize Bucharest industry, sometimes belated and incompatible, brought about important mutations at the level of the form of ownership, organizational and financial structure and the nature of the enterprises (Cepoiu 2009a). Tertiarization in the city of Bucharest took three forms: it either developed ex-nihilo, or it replaced the ancient service distribution structures (borough-sized shopping centers and, at a smaller scale, district-sized shopping centres) or on the contrary, it replaced the former industrial enterprises.

Nowadays, the place of the former industrial platforms or groups in Bucharest was taken by industrial parks, whose organization is radically different and not based on cooperation in terms of production operations, even more so as tertiary activities predominate or, occasionally, where the industrial influence was strong enough, a combination of industry-and-services predominates. The conduct of the new activities on the premises of the former »industrial complexes« is not uniform across the city and the number of spaces with industrial-park status is limited. This situation is due to the prerequisites that need to be satisfied when setting up an industrial park, a concept increasingly assimilated to a form adapted to the current economy, that of association and »cohabitation« of complex activities. Early in 2012, there were 3 industrial parks in Bucharest recognized by the Ministry of Administration and Interior (Figure 1), with the titles granted by a minister's decree or set up according to the stipulations of article 23, paragraph 2 of Government decree 115/2003: the Metav industrial park (16.576 ha, set up in 2002), Faur industrial park (68 ha, set up in 2003) and Sema Parc industrial park (16.928 ha, set up in 2004) on whose premises operate production facilities alongside companies involved in services and trade.

The analysis conducted on the deindustrialization/tertiarization relationship within industrial parks in Bucharest resulted in identifying three situations: incipient tertiarization; gradual, but definite tertiarization; advanced tertiarization. The criteria that resulted in highlighting the three instances were: the ratio of tertiary activities in the overall activities conducted, identifying three landmarks, function of the evolution during the time span studied (2007–2011): less than 50%, 50–80% and more than 80%; the complexity of the tertiary activities conducted within each industrial park, measured by their degree of diversity; the presence of services in association with the residential and research destination of that area.

3.1 Incipient tertiarization – the FAUR industrial park

What was to be the FAUR industrial park is the creation of engineer Nicolae Malaxa, considered the creator of the Romanian heavy industry. During 1927–1928, he built the Malaxa factories on the Eastern outskirts of Bucharest, initially specialized in repair and then in production of locomotives. One of the most important machine-producing factories in the country, the enterprise manufactured the prototype of the first Romanian self-propelled train carriage in 1931, and it was nationalized in 1948, when its name was also changed into 23 August (a day with a special historical significance for the Communist period); after 1990 it was renamed into Faur.

In the case of the FAUR industrial park, tertiarization is in an incipient phase (with an average ratio of 47% tertiary activities during 2007–2011) and it is the representation of long-term industrialization in the area. Standing out as the oldest industrial area among the areas analyzed and with the highest number of enterprises hosted, FAUR introduces itself as an eminently industrial space, with tendencies of tertiarization if one takes into consideration the values registered in the past five years. With about 23% increase in the number of companies in 2011 compared to 2007, FAUR continues to carry on the industrial identity of the place, a fact proved by the more than 30% of the companies specializing in activities that have earned it fame in time: tube and pipe production, hardware production, general or mobile mechanical operations, alongside light-industry specializations: the food industry, textiles or soap and perfume production. However, a trend can be observed, starting 2010, the development of tertiary activities (Figure 2), especially trade, but services as well. At the same time, there can be noticed a stronger diversification of services in the case of FAUR, represented not merely by activities from among the services that ensure the functioning of a city, but also covering fields such as culture, healthcare and social assistance (since 2008 the premises have hosted Romanian non-profit association *Ateliere fără Frontiere* (Workshops without Borders) whose purpose is fighting the marginalization and exclusion of the very underprivileged).

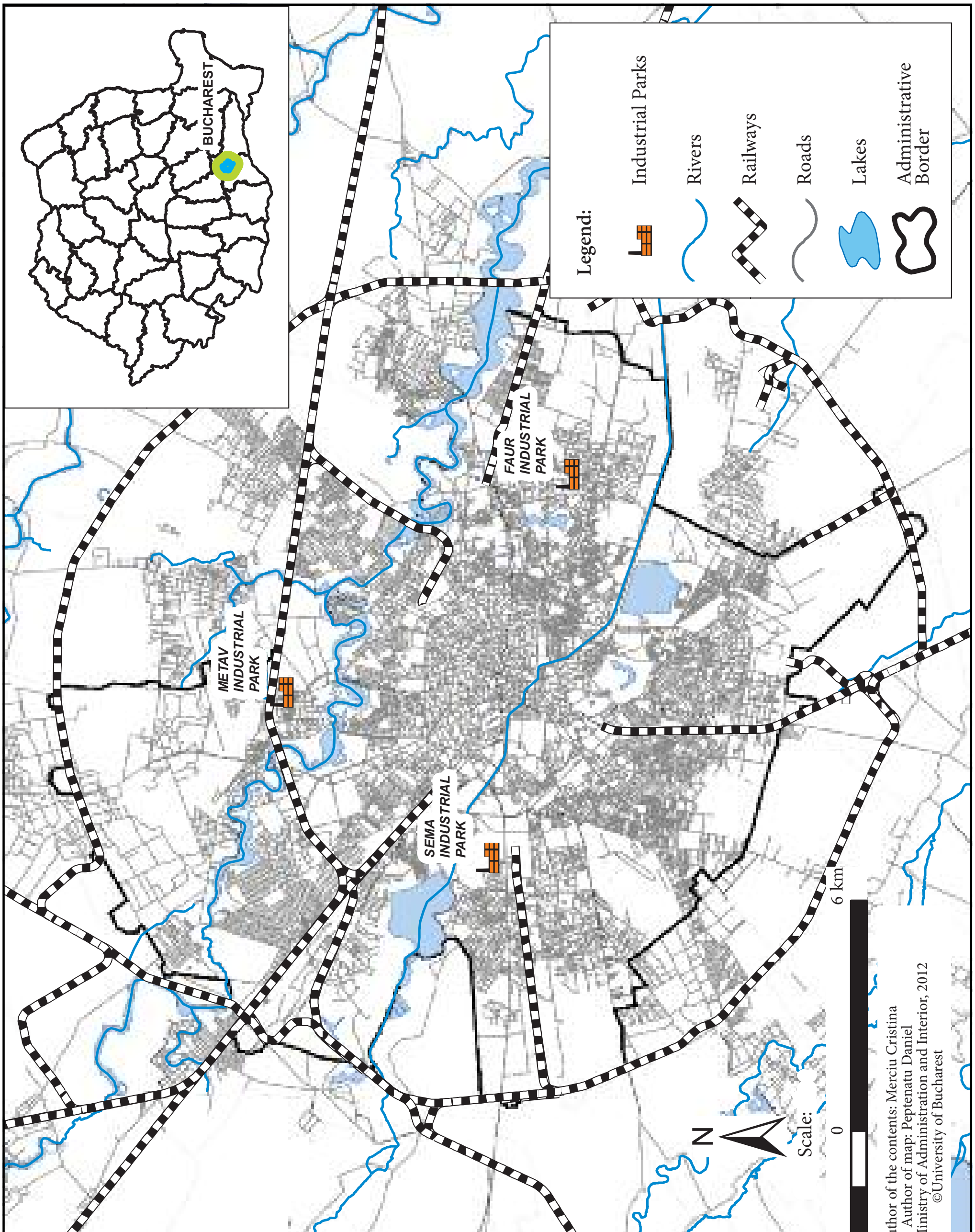

Figure 1: Location of the industrial parks in the city of Bucharest.

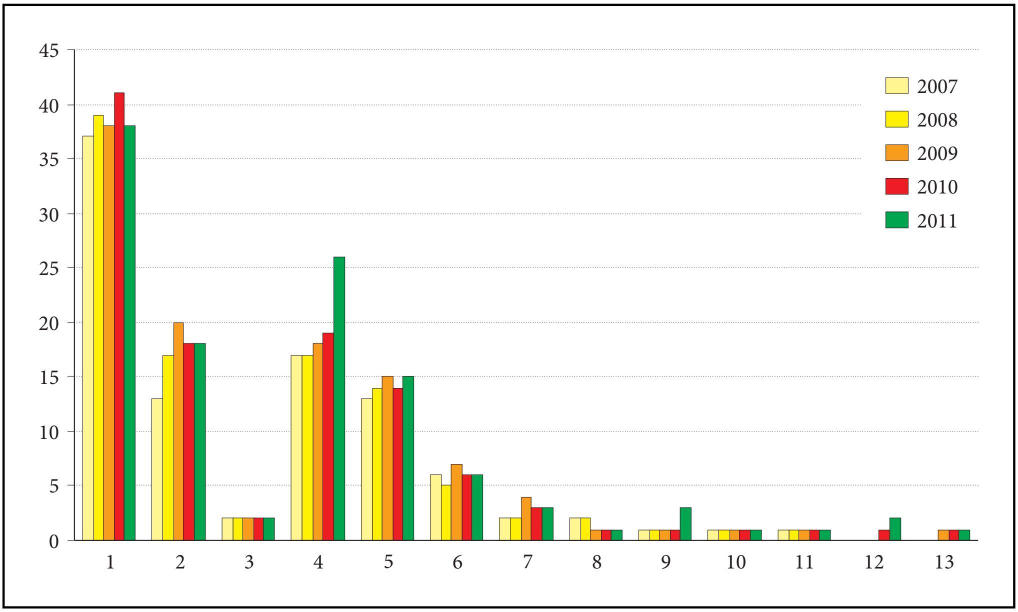

Figure 2: Evolution of the fields of activity inside the FAUR industrial park.
1 = processing industry; 2 = constructions; 3 = waste management; 4 = retail; 5 = professional, scientific and technical enterprises; 6 = real-estate transactions; 7 = show-business, cultural and leisure enterprises; 8 = information and communication; 9 = transport; 10 = financial brokerage and insurance; 11 = healthcare and social assistance; 12 = administrative service and support service enterprises; 13 = other service enterprises (Listă firme 2012).

3.2 Gradual, but definite tertiarization – the METAV industrial park

Adjustment to the demands of the free-market economy meant for METAV S. A., the former Bucharest Romanian Aeronautical Metallurgical Company, established in 1980, a repositioning within the Romanian economic landscape. METAV BUCUREŞTI was meant to be a research and production center for cast and forged parts for the Romanian aeronautical industry (Cepoiu 2009b, 260). At the present moment, out of a total 57 economic enterprises working on the premises of the METAV industrial park (created in 2002 in the wake of the privatization of the METAV S. A. company in 2000), a number around 30% higher than in 2007, 64% conduct operations in the field of services, predominantly in trade and professional, scientific and technical activities (that is advertising agencies). In the case of the secondary sector, the number of industrial and construction companies did not decline during 2007–2011 (Figure 3), on contrary it registered a constant rise, but much smaller when compared to the other branches. Nevertheless, although the zone is not undergoing deindustrialization, it is slowly engulfed by new investments in the service sector (with an average ratio of less than 70% during the 2007–2011 span), which might be equated with a gradual, but definite tertiarization, also helped along by the benefits of the positioning (in the Northern part of the capital, an area rich in natural resources – forests, lakes, leisure areas, etc. – offering access routes to central Romania) and associated with the remarkable investments in the real-estate sector made in the past few years.

3.3 Advanced tertiarization – the SEMA PARC industrial park

The third industrial park in Bucharest, SEMA PARC (Figure 4) represents the transformation of the SEMĂNĂTOAREA factory, specialized in machines and farm machinery production and created in 1949 as a successor of the former FICHET Company, a French company specializing in money safe production. The transformation into an industrial park, after the privatization from 1999, meant a diversification of the economic activities unfolded. Nowadays, there are 64% more companies than by the beginning of

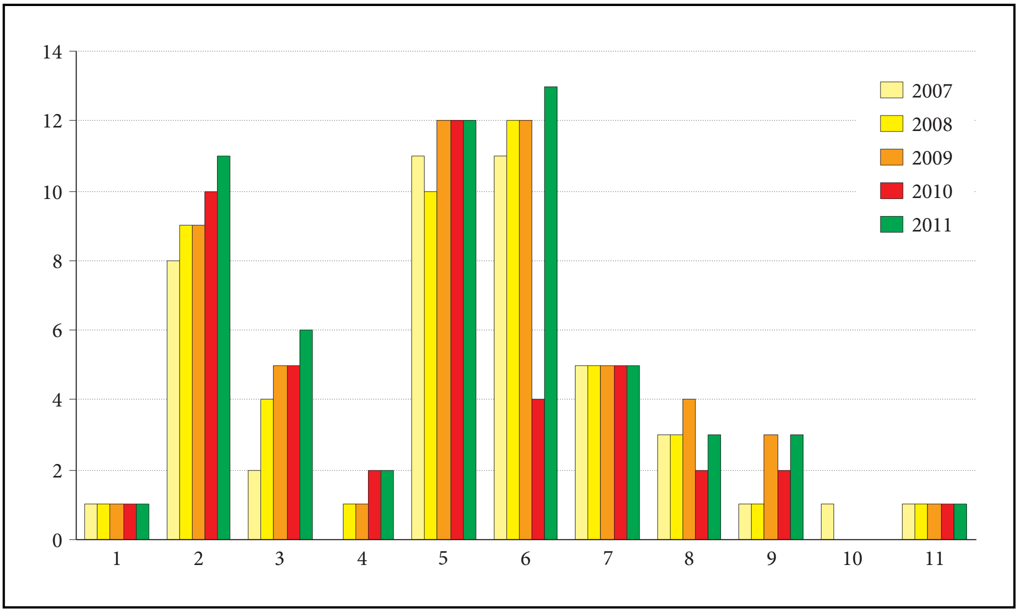

Figure 3: Evolution of the fields of activity within the METAV industrial park.
1 = agriculture; 2 = processing industry; 3 = constructions; 4 = electricity generation; 5 = trade; 6 = professional, scientific and technical enterprises; 7 = information and communication; 8 = real-estate transactions; 9 = hotels and restaurants; 10 = financial brokerage and insurance; 11 = other service enterprises (Listă firme 2012).

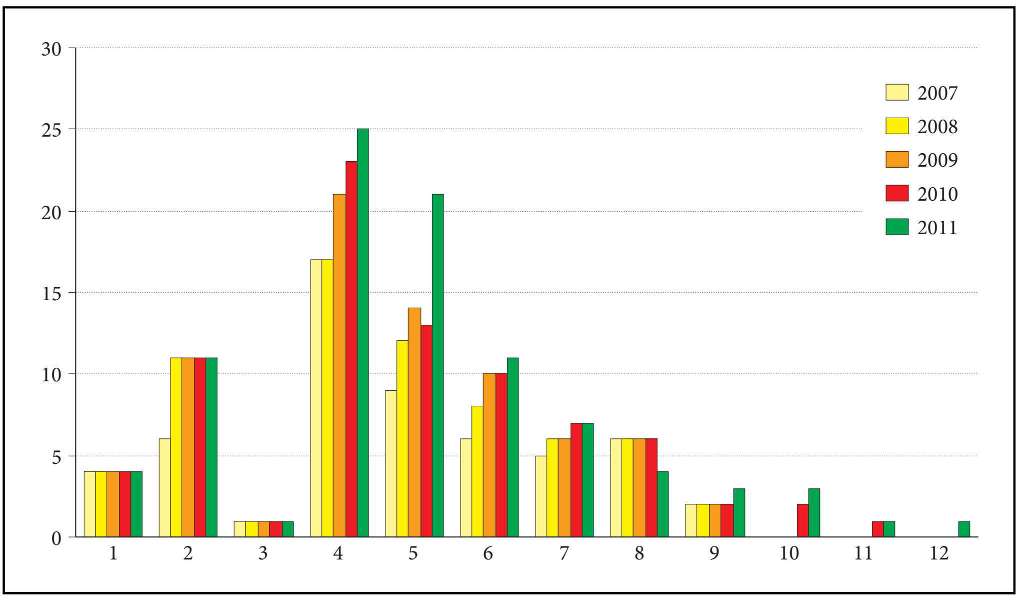

Figure 4: Evolution of the fields of activity within the SEMA PARC industrial park.
1 = processing industry; 2 = constructions; 3 = wastewater collection and treatment; 4 = trade; 5 = information and communication; 6 = professional, scientific and technical enterprises; 7 = administrative service and support service enterprises; 8 = real-estate transactions; 9 = hotels and restaurants; 10 = show-business, cultural and leisure enterprises; 11 = other service enterprises; 12 = education (Listă firme 2012).

the time span analyzed, that is 2007, the boom being due to trade and to information and communication enterprises. 2011 was a good year for the economic activity in SEMA PARC, as far as production of custom-made software was concerned, a situation reflected in the number of employees hired during 2010–2011.

SEMA PARC is different from the two other industrial parks analyzed because of the highest average ratio of tertiary activities registered during the 2007–2011 time span, that is more than 80%, as well as because of the investment premises it offered on the one hand to continuing production activity (but at a much lower rate than the initial output, that is on a mere 2 ha out of the total of 40 ha) and, on the other hand, to the opportunity to coordinate them with investments in real estate (residential and office space) and retail into a large-scale project expected to be completed in 2015.

All but exclusively based on what the reputation of the SEMĂNĂTOAREA factory used to mean up to a short time ago – the only company to manufacture self-propelled harvesting combines in Romania, but nowadays facing the threat of Austrian competitors in the field – the decision was made a few years ago to relocate production as an alternative to certain failure in the face of the phenomenon of globalization. The statistics indicate a significant drop in the number of employees after 1990, so that by the beginning of the time span analyzed (2007) it had 124, and by 2011 it had around 14 employees. This space, once known because of the reputation it had acquired because of having control of the most important enterprise of its type in South-Eastern Europe and grown into a symbol of national economy, is nowadays a tertiary space, where tertiarization managed to respond to the natural transformation that the economy of a capitalist city tries to negotiate. Moreover, it is a space that attracts because of the presence of a production-research-education cooperation (the Polytechnical University), favoring in the long run the development of ever more higher-tertiary enterprises.

4 Discussions and conclusions

The conditions under which tertiarization unfolded inside the industrial parks of Bucharest are similar to those in other capitals in Eastern-Central Europe, but the development of the process was in general different from one instance to the next, depending mainly on the history of the economic areas, industrial label and localization. Nevertheless, the Czech Industrial Park (CIP) localized in the district of Tabor, South Bohemia, and developed starting from the SILON Company founded in 1950 as a polyamide filament yarn producer knew a similar transformation as SEMA PARK. Today, the profile activity includes chemical industry, plastics processing, electric logistic, engineering and various services (Internet 1). DOLNI VÍTKOVICE industrial park, localized in the lower area of Vitkovice (Ostrava), in the vicinity of the most important European area in steel production, combines today, after the closure of the coal mine and pig iron production in 1998, the development of many projects focused on educational services, cultural and social events (with the remarkable Landen Park) and relying on the industrial history of the place which started in 1828 (Internet 2). In Slovakia, the European funds played an important role in the refurbishment of the brownfield industrial parks (Annual Report SARIO 2010).

In order to emphasize and understand the route taken by the industrial parks in Bucharest (Table 1) the years chosen for analysis were important. However, these years can explain only part of the dynamic activities within industrial parks (external environment context), because their evolution depended also on the management strategies of companies (internal environment context): 2007 was the year of Romania's accession to the European Union and, for the economy, the peak of the investment boom; 2008 and 2009 were characterised by the effects of a new economic recession, which started off in the real-estate sector, spread to the heavy-industry sector and then on to services; the global economic crisis from 2008 brought about, for many companies, the end or the cutback of credit lines in the wake of the nationwide financial deadlock, considerable layoffs, as well as the decline of production and the shut-down of certain production lines and services; 2010 and 2011 were years with a temporary recovery in terms of the number of companies and global turnover, but not in terms of the number of employees and global net profit.

Taking into account the tertiarization dynamic in the past five years in the industrial parks, we may suggest two scenarios for their evolution, positive and negative, relying on different socio-economic aspects determined by the internal and external environment context (Figure 5).

In the essential contribution of services to the development of the Bucharest territorial system, which relies on a set of interactions and connections between the city and surrounding areas, the influence exerted on the tertiary sector emergence until now inside the industrial parks by the internal environment is quantified by means of four parameters: a) the localization (one of the main factors when planning economic activities): the industrial parks position in distinct areas of the capital meant no room for the apparition of competition because of proximity, but competition at the scale of the capital city, in terms of the rent and infrastructure prices charged, both among themselves and against business and logistic parks; b) the history of the place (offering information on measuring the chances of success of the investment, as the mark left on the place): the three factories represented an important part of the Bucharest's economy before 1990; c) the vicinity (which may act as an economic advantage from the perspective of supplies and sales-related strengths, but also, by improving cooperation relations later on transposed into competition): the industrial parks are near to important transport routes ensuring connections with the capital city's exterior (Faur – the ring road and the A2 Bucharest–Constanța highway; Sema Parc – the A1 Bucharest- Pitești highway;

Table 1: Ranking of the three industrial parks according to some indicators – values from largest to smallest (Listă firme 2012).

Indicators	2007	2008	2009	2010	2011
Total number of companies					
FAUR	95	101	109	109	117
SEMA PARC	56	67	75	80	92
METAV	44	47	53	44	57
Total number of employees					
SEMA PARC	4,670	5,181	6,434	6,504	8,102
FAUR	3,397	3,358	3,087	3,061	2,548
METAV	1,175	1,778	1,681	1,667	1,735
Global turnover (in euro)					
SEMA PARC	345,533,938	339,832,897	319,519,103	332,766,552	355,923,635
METAV	213,548,927	241,256,060	195,584,135	164,521,887	173,216,407
FAUR	167,283,624	183,284,087	152,971,652	158,645,566	159,554,454
Global net profit (in euro)					
METAV	22,208,340	14,037,393	8,793,923	1,515,627	2,954,797
FAUR	10,682,051	3,362,219	–77,418	898,318	–1,909,566
SEMA PARC	6,737,494	–30,492,837	–33,362,752	–16,190,752	–2,308,818

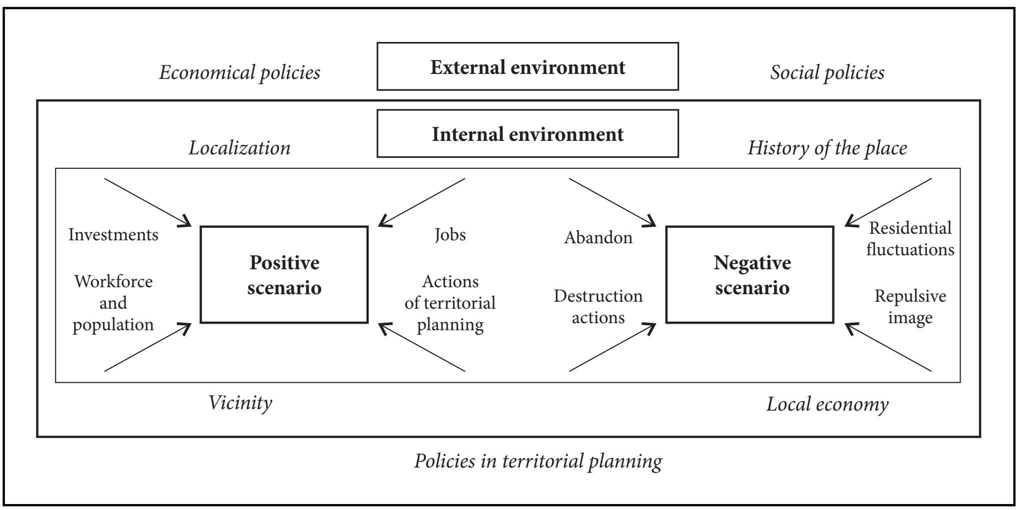

Figure 5: Forecast scenarios for tertiarization in industrial parks in Bucharest.

Metav – the A3 Bucharest–Ploieşti highway); d) the local economy (analysed in terms of viability and meaning to respect the principle of economic heterogeneity in a territorial system): the three brownfield investments influenced the local economy evolution in time, today the industry continuing in association with services. Even if these parameters had an important impact in the tertiarization process beginning, they still may introduce changes, influencing theirs evolution trajectories. Not in direct relation with the management strategies of the industrial parks, the influence of the external environment is even greater and may bring in, due to its variation in time difficult to predict, the shaping of new perspectives of tertiarization evolution by means of the policies enforced in the social and economic fields, as well as in other fields pertaining to territorial planning.

In their way of increasing competition, attempt to best satisfy the demand/offer ratio, need for accessibility or to elaborate sustainable development strategies, the dynamic forecast in terms of tertiarization of the industrial parks in Bucharest is hard to be appreciated. The contribution of the two scenarios proposed is to shape the general internal and external factors in which context, opportune or restrictive, the evolution of the industrial parks may be associated to investments, jobs and development or, on the contrary, to important residential fluctuations and abandoned economic areas.

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