



World Multidisciplinary Civil Engineering-Architecture-Urban Planning Symposium 2016,
WMCAUS 2016

Territorial Aspects of Entrepreneurial Activity in Polish Suburban Zones

Justyna Martyniuk-Peczek^{a,*}, Tomasz Parteka^b, Grzegorz Peczek^c

^a*Gdansk University of Technology, Faculty of Architecture, Department of Urban and Regional Planning,
Narutowicza street 11/12, 80-233 Gdansk, Poland*

^b*Sopot University of Applied Sciences, Faculty of Architecture, Rzemieslnicza street 5, 81-855 Sopot, Poland*

Abstract

Globalization has led to an increased correlation and integration of various fields in modern civilization, including those connected with allocation of entrepreneurial functions. Connection, on a global scale, has shown an increased significance of worldwide corporations. Territorial allocation of the entrepreneurial function has become the subject of translocation and revaluation. Translocation can be understood as the change of spatial orientation. It is manifested through an increasingly fading role of industry concentration, mainly the one of processing and production. On a metropolitan scale, the scattering of these activities has gained a new meaning as well. This paper presents some results of the research done by the relations between urban sprawl and entrepreneurial activity in these areas. Previous research carried out by the authors shows, that the Polish dimension of suburbanization has a unique quality associated with small and medium enterprises' activity (SMEs). It is manifested by a significant number of companies located in the suburban zones.

© 2016 The Authors. Published by Elsevier Ltd. This is an open access article under the CC BY-NC-ND license

(<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

Peer-review under responsibility of the organizing committee of WMCAUS 2016

Keywords: Metropolitan Area Gdansk Gdynia Sopot; suburban zone; entrepreneurial activity; SME sector; territorialisation; economic activity factors in suburban zones.

The aim of the paper is the search for the determinants of location and of SMEs' development in suburban zones. The list of the determinants will be formed based on a spatial analysis of the urban forms as well as on qualitative studies conducted using a

* Corresponding author. Tel.: +48 58 347 16 06; fax: +48 58 347 16 06.

E-mail address: juspecze@pg.gda.pl

questionnaire distributed to the entrepreneurs in selected areas. Urban analyses refer to the study of the urban and architectural forms, in search for a spatial pattern and a functional model.

The paper describes the spatial structures and the forms of Polish suburban zones, demonstrated on the example of two selected towns in the Metropolitan Area Gdansk-Gdynia-Sopot (MAGGS). The choice of the towns and places for analysis of the spatial structure follows prior identification of entrepreneurs' nests.

The Polish suburban zone distinguishes itself among others by a large concentration of companies from the SME sector. However, this characteristic feature may be difficult to spot at first glance, because architectural and urban forms do not suggest such functions. This fact confirms that a small scale of entrepreneurship assures flexibility in the field of economic activity as well as in the field of spatial territorialisation. Although the forms of the Polish urban sprawl may lack spatial order, meant by a coherent landscape, economic activity of the SMEs, along with manufacturing and logistic connections, seems to fit well in the process of executing the essence of sustainability. In the SME sector of the suburban area, compatibility of economic (growth factors, threats of downfall), social (family businesses) and ecological (respecting activities not diminishing the "self" environment) targets is realized. This is a tendency far more positive than the one presented by big companies.

1. Introduction

At the turn of the century, territorialisation of space has undergone a significant transformation. Currently, urban sprawl that is characteristic for developing countries is one of its symptoms. The issue of suburbanization has been widely considered in professional literature [1,2,3]. This phenomenon has many faces, depending on the spatial-economic-cultural conditioning. In Poland, this process began developing after 1989, when the political-economic breakthrough took place. The nature of this evolution has been widely described in literature [4,5,6]. These authors emphasized the links to similar phenomena occurring in Western Europe or in the USA. The form of Western-European suburbanization has been described [7,8,9]. Most of these authors, however, focused on the spatial form and mainly described the sprawling cities in the context of the housing function. Against that background, the Authors of the article, in their previous studies [10,11] characterized the unique nature of the Polish suburbanization process. While examining two parallel phenomena – the advancing process of suburbanization as well as the development of micro-, small and medium enterprises – the authors noticed correlation of these two phenomena. While examining the Gdansk-Gdynia-Sopot Metropolitan area, two cities were distinguished, where economic activity (calculated by the location ratios) was significantly higher than in the central city areas. Such approach allowed presentation of two directions in the considerations on the subject of suburbanization, based on the SME sector. The first of them refers to the issue of territorialisation of the Polish cities' space after 1989. The second is an attempt at finding the answers to the developmental stimulants of this SME sector in the suburban areas.

2. Territorialisation and development processes of the SME sector in suburban areas

2.1. The dimensions of territorialisation of the space in Polish cities

Transformation of the political system after 1989 led to transition from planned economy to market economy. Bankruptcies of large enterprises and unemployment resulted in the society's need to seek new forms and possibilities of employment. Under these conditions, the SME sector, which currently constitutes 99% of all enterprises, has begun to strongly develop [12,13]. In 2013, it reaches the number of over 1.77 million [14]. Consequently, territorial distribution of the economic function has been translocated and reassessed. Translocation is understood as the change of spatial orientation. It is expressed by blurring of the importance of industry, mainly the processing industry. The new emerging structures of the production function in cities indicate orientation of fragmented business entities providing the total economic effect (e.g. the GDP growth) comparable to old large concentrations of industry. The SMEs constitute about 99% of all enterprises, employing about 60% of the total working population and generating nearly 50% of the national GDP [11]. At the same time, the areas previously used for production purposes have been abandoned, set aside, at best, they are subject to revitalization and transformation into other functions (e.g. housing on brownfields). Under the conditions of large Polish cities, the process of spatial succession, which involves replacement of the old, used out production function with a new (modern and competitive) function, also an industrial one, actually does not exist.

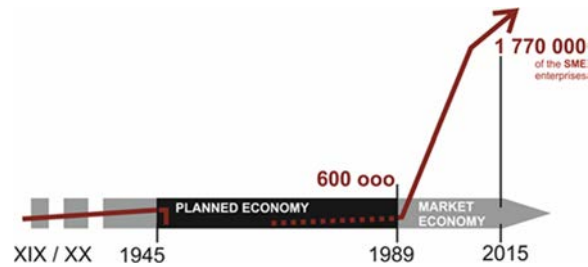


Fig. 1. The scheme of the SME sector's growth in Poland, source: authors based on [14].

Yet, development of the suburban area can be strongly observed [5, 6]. From the perspective of a rational use of space, it is not a favourable tendency, however, the process has been objectively moving into the suburban areas of the cities. It is the first dimension of territorialisation, involving the change of spatial allocation. The second type of the territorialisation process concerns the change of the scale of business entities. The ownership structure has changed as well. In place of the dominance of state industrial monoculture a loosely connected microstructure of private business entities has appeared. They constitute a sort of a “micro-plankton” of economic environment. The SME sector has become the key element – the driving factor of economic and spatial development on a local level.

Another territorial dimension of business activity involves transportation orientation of raw the materials' supply and of the products' shipment. Both raw materials (sometimes semi-finished products) and final products do not find local orientation. It requires perfect, distributed logistics.

2.2. Methodology of the work, based on the search for the development stimulants of entrepreneurship in the suburbs

The research area encompassed the Gdansk-Gdynia-Sopot Metropolises. Suburban areas of the MAGGS seem to be a very good illustration of the phenomena occurring within the sphere of the relations between economic activity of small and medium enterprises and the suburbanization processes. The Area has been defined based on the elaborations done by the Pomerania Province management (studies on the Tricity metropolitan zone). It consists of the three central cities (Gdansk, Sopot, Gdynia) composing the so-called Tricity, five smaller cities (Rumia, Reda, Wejherowo, Tczew, Pruszcz Gdanski) and eighteen neighbouring municipalities. [15]. Moreover, in regional context, the MAGGS is located in the Pomerania Province, where the number of active SMEs per 1000 inhabitants is higher than the Polish average [16], which allows highlighting the phenomenon. The Authors' studies on the simultaneously occurring processes of suburbanization and the SME sector's development were divided into four stages:

- Part 1.- Identification of the suburban entrepreneurship nests.
- Part 2. – Urban study and analysis of the spatial structure of entrepreneurship nests.
- Part 3. – Qualitative studies – direct interviews with entrepreneurs.
- Part 4. – Comparative analysis of urban and architecture forms of entrepreneurship nests.

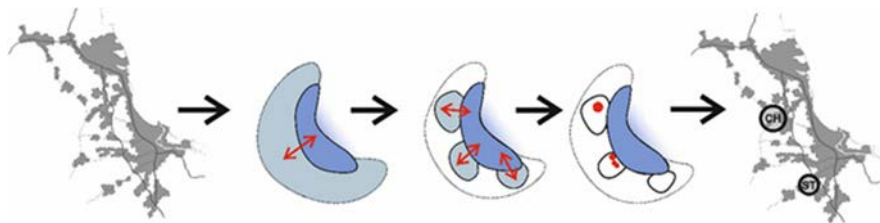


Fig. 2. Part 1.- Identification of the suburban entrepreneurship nests. Scheme illustration of the research choice of entrepreneurship nests, based on the image of the spatial structure of the MAGGS.



Fig. 3. Part 2. – Urban study and analysis of the spatial structure of entrepreneurship nests. Scheme illustration of the spatial studies and the analyses of selected entrepreneurship nests.



Fig. 4. Part 3. – Qualitative studies – direct interviews with entrepreneurs. Illustration of the qualitative study scheme in selected suburban municipalities within the MAGGS region.

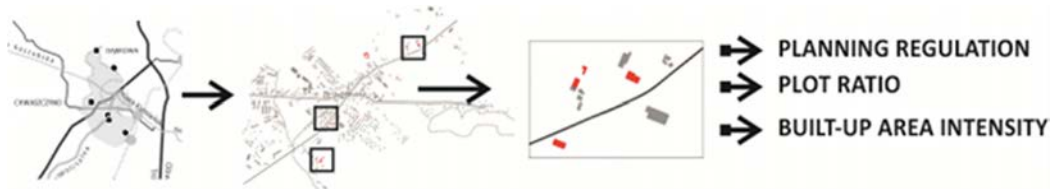


Fig. 5. Part 4. – Comparative analysis of urban and architecture forms of entrepreneurship nests. Structure of the buildings in Chwaszczyno. The entities included in the survey are marked red.

2.2.1. Part 1. Identification of the „suburban entrepreneurship nests”.

The first stage of the studies involved identification of the „suburban entrepreneurship nests”. This stage was described in detail in: [11]. The nests were identified based on the studies of two indicators: the suburbanization rate and the index of the SME entities’ concentration. Using statistical data, migration analysis and the construction activity index were used for determining the suburbanization ratio. A location quotient measuring the degree of concentration of a given characteristic in a given area (in % of the characteristic in general) in relation to the degree of concentration of population (in % of the total general) was used to measure economic activity. Generally, a location quotient higher than 1.25 is assumed to indicate a regional concentration of a given characteristic. Two towns from the identified entrepreneurship nests – Chwaszczyno and Straszyn - were selected for a detailed analysis of the spatial structure. These two were also found to have the highest rate of the location ratio in previous studies. Additionally, suburbanization ratios for these two towns were found to rank within 1st – 3rd place. Among all the examined municipalities, indices of the SME entities’ concentration in these two towns were the highest.

2.2.2. Part 2. – Urban study and analysis of the spatial structure of “suburban entrepreneurship nests”.

The second part of the studies was devoted to spatial analyses. Previous elaborations of this research team in the field of spatial and structure analysis were also discussed [11]. In this part, the Authors examined basic characteristics

influencing development of the settlement units. The transportation network, the building structure, the town morphology and the terrain functions were analyzed. Additionally, planning documents such as the study on the conditions and the directions of municipal development were examined as well, in order to analyze the spatial policy contained in these documents. The synthesis of the spatial analyses of Chwaszczyno and Straszyn can be divided into two groups: those referring to external conditions, including those related to the spatial policy, and those referring to the internal structure and to the form of spatial development. As a result of the analysis of the transportation system, which is considered as one of the main developmental factors, it turned out that none of the town lies on key transportation hubs that are localized in the metropolis. The fact is, that regional roads run through both towns. These links, at this point, become essential. Interestingly, both towns are located in immediate vicinity or will have connection with the newly planned national roads. This element, however, is a future-stimulant, which is most likely to significantly change functioning of both these towns.

In both cases, the records of the spatial policy contained in the documents, at a local level, are flexible enough for a possible development of a large number of SMEs in these towns. Absorbingly, none of the municipalities indicated these towns in their documents as key places of economic activity. In this case, it is the free market which somehow determined emergence of this type of entrepreneurship nests.

Spatial analyses at the level of the internal structure and the form of spatial development showed no special and exceptional forms. Both towns show typical forms of the Polish urban sprawl, which was previously reported by many authors [17]. Both towns exhibit identical spatial characteristics and social infrastructure. What is more, both have similar - diffused - form of the urban tissue.



Fig. 6. The building structure of Chwaszczyno and Straszyn, with the surveyed entities marker in red.

They lack public space and the buildings in these towns are chaotically scattered around, without any structure plan. This seems to reflect the aspirations and the needs of the people (i.e. the investors), rather than a designed spatial system. Thus, the issue of the stimulants of entrepreneurship and its development is even more pervading.

2.2.3. Part 3. – Qualitative studies – direct interviews with entrepreneurs

Qualitative studies constituted an important element of the verification of the theses posed in the project. The subject of the conducted study, which comprised of 251 entrepreneurs running their economic activity in the selected municipalities within the Gdansk-Gdynia-Sopot Metropolitan Area, were the respondents randomly selected from the Central Statistical Office (CSO). The survey was of a random-sample nature. Interestingly, most of the drawn companies were from those municipalities in which the entrepreneurship nests are located – Chwaszczyno and Straszyn.

The purpose of the CATI study was to determine the relations between the development of Small and Medium Enterprises in the Tricity Metropolitan Area and the suburbanization processes occurring in the area covered by the survey. The work on this part of the project is still ongoing and is aimed at creating cross-tables presenting individual variables. The results of this study will be presented in the next stages of the research. At this stage of the project,

three basic thematic groups, which directly influence the SMEs' development in the suburbs, can be distinguished, i.e.:

- the issues related to economic activity,
- the motives for and the decisions about enterprise localization,
- evaluation of the space around an enterprise.

In terms of territorialisation, the most important conditions contained in the respondents' responses included:

- Family Business – family character of running a business, which translates into a strong need for a relation between the place of residence and workplace localization;
- the dominant cause for enterprise localization – at the place of residence or in its vicinity;
- the change of enterprise localization – nearly quarter of units moved from the central city to the suburbs;
- the local residents constituted main groups of the clients for the services provided by given entrepreneurs;
- logistics – proximity of the central cities – Gdansk, Gdynia, Sopot was evaluated positively, almost equally positively proximity of a communication network.

Analysing the answers contained in the surveys in this context, a different understanding of the geographical distance (the physical distance) emerges, in reference to the activity associated with broadly conceptualized production and consumption. These, in turn, form the concept of “agglomeration effects” resulting from a geographical proximity of enterprises from the same sector (the benefits of the location) or from multiple sectors (the benefits of urbanization).

2.2.4. Part 4. - Comparative analysis of urban and architecture forms of „entrepreneurship nests”

Currently, the Authors of the project are at the stage involving analysis of the building structure. Respectively, multiple analyses were done of the physical form in selected areas, focusing on the street pattern, the plot pattern, and the building pattern. Selected randomly companies, located in these areas, participated in the qualitative study. Analysis was aimed at determining the spatial rules existing in the areas surrounding these objects. The group of examined objects, however, turned out to involve small, commercial buildings, often seemingly temporary, such as: pavilions, garages, and residential houses with commercial premises. Imaging of both towns exhibits a widespread chaos, which can be specified as diffusion and lack of spatial cohesion. Landscape in both towns bears characteristics of contrasting buildings cluttered up with visual advertising. The images below illustrate the analysis of Chwaszczyno and Straszyn. Both towns are characterized by identical spatial features and social infrastructure. What is more, both have a diffused form of the urban tissue. They are deficient in public space, while the buildings are scattered around chaotically, lacking any planned structure (due to the investors' vision, rather than a designed structure of the space). In this light, the question about the stimulants influencing development of suburban entrepreneurship is more intriguing. So far, at this stage of the studies, it is difficult to specify them in detail.

3. The results and discussions

3.1. Constructing the model

The research carried out on the suburban zone of the Gdansk-Gdynia-Sopot metropolitan area rather confirms importance of the benefits of urbanization (localization in selected places with a clear spatial conditioning). The benefits, being the significance of the same sector, have not been confirmed. In fact, there have been no business entities of the same industry. On the contrary – the business entities are very varied. Impact of large, technologically advanced entities on motivating the activity of fragmented entities cooperating with large-scale entities can be here observed. This provides the basis for the territorial model (at the creation phase – in statu nascendi), in which large entities form (in a conscious or discrete form) this “economic plankton”. Both scales perfectly complement each other. This creates a self-perpetuating mechanism of local and regional growth that uses endogenous development factors. It is vital for territorial development [18-23], because it triggers locations that are scattered, yet, at the same time, cooperative or transportation-oriented at the centre, which in case of the G-G-S Metropolis is heavily blurred. The territorial model of dispersed entities, however, has a certain characteristic of a developmental form, which is difficult to notice. These entities still stand to confront competition with other firms. Rarely, it involves competition with a technologically strong entity.



Fig. 7. The structure and the building forms - Chwaszczyno and Straszyn.

More often, it is a permanent competition with similar entities. This creates an interesting situation of permanent innovativeness as the only chance for survival. It is associated with a territorial flow of knowledge, on a local scale. This flow is spontaneous in nature and generally is not associated with innovation of large firms. Small entities are lastingly successful as long as they strike the technological niche difficult to be substituted by other firms. As the product is exploited, they abandon this solution and produce a new one. This enormous flexibility is only possible on a small scale. This scale does not necessarily mean a periphery of innovativeness. On the contrary, the benefit of the access to knowledge centres and to the studies located in the central area of the metropolis can provide an effect of knowledge diffusion. These entities can more easily deploy innovations adequate to their capacity for absorption of the material and the workers' knowledge. This would indicate validity of the deglomeration of entrepreneurship incubators and start-ups outside the central zone.

3.2. Conclusions

This phase of the metropolitan development modelled on foreign experience can occur in the upcoming decade. It will create a more complex model consisting of the flows: knowledge-study-implementation – in the zones of mutual centre-periphery interaction. This can significantly re-evaluate the meaning of the concepts: centre (the growth meaning) and peripheries (the stagnation meaning). These meanings can be reversed. The morphologic structure of the types of economic activity allows posing such hypothesis. It, however, requires verification.

Acknowledgement

This paper is written within the project UMO-2013/09/B/HS4/01175, financed by The National Science Centre in Poland.

References

- [1] Gillham, Oliver. 2002. *The Limitless City: A Primer on the Urban Sprawl Debate*, Island Press.
- [2] Bruegmann, Robert. 2006 *Sprawl: a compact history*. Chicago: University of Chicago Press.
- [3] Clapson, Mark, and Hutchison, Ray. 2010. *Suburbanization in Global Society. (Research in Urban Sociology)*. Bingley, Emerald
- [4] Lorens, Piotr (Ed.). 2005. *Problem suburbanizacji (The issue of suburbanization)*. Warsaw: The Urbanist



- [5] Lisowski, Andrzej, and Grochowski, Mirosław. 2009. Procesy suburbanizacji. Uwarunkowania, formy, konsekwencje (Suburbanization processes. Conditioning, forms, consequences). Bulletin KPZK (The Concept of Spatial Development of the Country) no. 240
- [6] Kajdanek, Katarzyna. 2012. Suburbanizacja po polsku (Suburbanization in Polish), Publishing house: Nomos
- [7] Nuissl, Henning, and Rink, Dieter, and Couch, Chris, and Karecha, Jay (Ed.). 2007. Decline and Sprawl: Urban Sprawl is not Confined to Expanding City Regions in Couch, Chris; Leontidou, Lila; Petschel-Held, Gerhard (Hrsg.). European Patterns of Urban Sprawl. Oxford: Blackwell.
- [8] Lisowski, Andrzej, and Mantey, Dorota, and Wilk, Waldemar. 2014. Lesson form Warsaw: The Lack of Coordinated Planning and Its Impacts on Urban Sprawl in Stanilov, Kiryl, and Sykora, Ludek (Ed.). Confronting suburbanization. Urban Decentralization in Postsocialist Central and Eastern Europe. Wiley Blackwell: Chichester
- [9] Stanilov, Kiryl, and Sykora, Ludek (Ed.). 2014. Confronting suburbanization. Urban Decentralization in Postsocialist Central and Eastern Europe. Wiley Blackwell: Chichester
- [10] Martyniuk-Peczek, Martyniuk- Kwaitowska Olga, 2012, The dynamic Polish suburban landscape created by SME sector, Proceedings: Public Spaces – Urban Cultures Conference “Ambivalent Landscapes: sorting out the present by designing the future”, Faculdade de Arquitectura, Universidade Tecnica de Lisboa
- [11] Martyniuk, Olga, and Martyniuk-Peczek, Justyna, and Peczek, Grzegorz. 2015. Economic Vitality of Polish Suburbs. GSTF Journal of Engineering Technology, Vol. 3 No. 4
- [12] Pietrewicz M., 2002. Makroekonomiczne uwarunkowania rozwoju przedsiębiorczości w Polsce (Macroeconomic developmental conditioning of entrepreneurship in Poland), [in:] Instrumenty finansowe w pobudzaniu aktywności gospodarczej Polski (Financial instruments in stimulating economic activity of Poland) Ostaszewski J. (ed.), SGH, Warsaw
- [13] Sitek M., 2013. Współczesne problemy rozwoju małych i średnich przedsiębiorstw w Polsce (Contemporary developmental problems of small and medium enterprises in Poland), [in:] Współczesne problemy zarządzania małym i średnim przedsiębiorstwem (Contemporary problems in management of a small and medium enterprise), ed. O. Seroka-Stolka, Publishing House: WZ Publishing Section of Czestochowa University of Technology, Czestochowa
- [14] Raport o stanie sektora małych i średnich przedsiębiorstw w Polsce w latach 2013–2014 (Report on the state of small and medium enterprises in Poland during the years 2013-2014), 2015, Polska Agencja Rozwoju Przedsiębiorczości (Polish Agency of Entrepreneurship Development), Warsaw
- [15] Auksztol, Jerzy, and Matczak, Radomir. 2011. TRÓJMIEJSKI OBSZAR METROPOLITALNY 2009 (TRICITY METROPOLITAN AREA 2009). Gdansk: The Marshall Office of Pomerania Province, the Statistical Office in Gdansk
- [16] Raport o stanie sektora małych i średnich przedsiębiorstw w Polsce w latach 2011-2012 (Report on the state of development of small and medium enterprises in Poland during the years 2011-2013, 2013, Polska Agencja Rozwoju Przedsiębiorczości (Polish Agency of Entrepreneurship Development), Warsaw
- [17] Solarek Krystyna, 2013. Struktura przestrzenna strefy podmiejskiej Warszawy. Determinanty współczesnych przekształceń (Structure of the suburban zone of Warsaw. Determinants of contemporary transformations), Publishing House: Warsaw University of Technology, (in Polish)
- [18] Paasi, A. 2008. Territory, In: Agnew, J., Mitchell, K. & Toal, G. (eds.) A Companion to Political Geography, 109-122, Oxford: Blackwell Publishing
- [19] ESPON 111 Potentials for polycentric development in Europe. 2005. The EU Commission and the Member States of the EU25, plus Norway and Switzerland, Nordic Center of Spatial Development, Stockholm
- [20] ESPON 2013 Scientific Report Progress on a European Platform for Applied Territorial Science. 2014. ESPON 2013 Programme, Luxembourg
- [21] Capello, R., Fratesi, U., and Resmini, L., 2011, Globalization and regional growth in Europe, Springer, Heidelberg
- [22] Capello, R., and Lenzi, C. (eds), 2013, Territorial Patterns of Innovation: An Inquiry on the Knowledge Economy in European Regions, Routledge, London
- [23] Perucca, G. 2014, The Role of Territorial Capital in Local Economic Growth: Evidence from Italy, European Planning Studies, Vol. 22(3), p. 537-562