

SUSTAINABLE REGIONAL DEVELOPMENT AND PERIPHERALITY AND INNOVATION IN THE CONDITIONS OF GLOBALIZATION

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Purpose: The main aim of the article is to characterize and analyze the issue of sustainable development in the regional dimension, with particular emphasis on peripherality and innovation as a context of modernization changes in the conditions of globalization.

Design/methodology/approach: The article uses a method of analysis of literature in the field of regional studies, referring to the problems of regional development in the perspective of conditions and changes in the macroscale. The thematic scope of the article includes an analysis of the theoretical foundations of regional development, the issue of regional disparities and developmental distances, the characteristics of peripherality and innovation as phenomena determining opportunities and barriers to development in the conditions of the globalization process.

Social implications: The impact of the characteristics and analysis contained in the article can mark itself in terms of the goals and directions of regional policies formulated and implemented by public authorities at different levels. It can contribute to increasing the awareness and scope of knowledge of the regional community, especially its decision-making circles, with regard to the main goals and directions of development at the regional level, taking into account the role of innovation in overcoming the state of peripherality and marginalization under the prevailing global development trends.

Originality/value: The value of the article is based on a focused analysis of the issue of sustainable regional development and showing its determinants in a new perspective, determined by the phenomena of peripherality and innovation as a context of changes on a global scale. The characteristics and analyses of the issue in question contained in the article are part of the trend of regional studies oriented towards the search for ways to overcome inter-regional disparities and disparities in order to achieve regional balance and convergence.

Keywords: sustainable regional development, peripherality, innovation, globalization.

Category of the paper: General review.

Introduction

Globalization is one of the most important determinants of the economic, political and social sphere of action, directing the dynamic, tense and contradictory transformations of the modern world. The current stage of globalization, due to the violence and unpredictability of changes in the macroscale, should be treated as a qualitatively new phenomenon, requiring the use of new analytical and research schemes (Jałowicki, 2007). The process of globalization creates a new environment in which economies, states, regions and societies operate. It obliges you to change your existing habits and rules of thinking and acting. The phenomenon of globalization should be understood dialectically, which means that events at one pole of a straddling relationship often give rise to dissimilar or opposite phenomena at the other pole (Giddens, 2002). Actions and events remote in space and seemingly disconnected from each other, however, condition and affect each other, causing significant consequences for the economies and societies of many countries and regions.

The transformations taking place in the macroscale today have diverse character and multiple effects in the economic, political and social spheres (Pietraś, 2002; Wnuk-Lipiński, 2004). Despite the tightening of international and corporate ties in the economic sphere, globalization does not lead to the withdrawal of the state from economic activity. On the contrary, it enforces innovative policies related to economic development, stimulating employment and competitiveness of enterprises. Contemporary globalization processes create conditions for effective actions at the level of countries and regions in the use of various forms of innovation (Oniszczyk-Jastrząbek, 2011).

Globalization is a forcing factor for innovation and modernization, especially in areas classified, due to underdevelopment, as semi-periphery and periphery (Tuziak, 2013). On the other hand, modernization is accelerating globalization in the areas that are at the heart of this process. There is no doubt that in the conditions of globalization there is an increase in inequalities and disparities in development, both in the international, domestic and regional dimension (Dorożyński, 2011). The differences and divisions typical of globalization bear the hallmarks of the center-periphery dichotomy. The countries and regions included in the center play a decisive role in economic processes. The remaining areas in a weaker position must adapt to the situation and optimally arrange their relations with the center in order to achieve development balance.

Regional development: Elements of theory

Regional development is the subject of regional studies, economics, sociology and social geography (Isard, 1969; Chojnicki, 2004; Sagan, 2007; Jałowiecki, Szczepański, Gorzelak, 2007). The concept of regional development also belongs to the basic canon of concepts in the sociology of social change. On the basis of sociologically oriented analyzes of the presidents of change and development, apart from the theory of modernization and the theory of dependent development, the concepts of alternative development, i.e. endogenous, regional and local development are most often mentioned (Krzysztofek, Szczepański, 2002; Jałowiecki, Szczepański, Gorzelak, 2007). The authors of this type of concept emphasize the role of endogenous factors in the form of internal resources of individual regional and local communities, the use of which to a large extent determines the sustainable economic development of given socio-territorial systems. The issue of regional development has been the subject of a lively scientific discourse since the middle of the last century (Stackelberg, Hahne, 2011). The multifaceted nature of development in the regional dimension makes it difficult to define it precisely and clearly define the set of factors and conditions affecting the direction, pace and results of this process (Głuszczyk, 2011; Grillitsch, 2019; Łązniewska, 2022). Attempts to define regional development taking into account the balance of economic and social factors point to changes in regional productivity measured by population size, employment, income and value of added production. It is emphasized that regional development also includes social development identified with the level of health care, prosperity, quality of the natural environment, creativity (Dziemianowicz, 1997).

Since the mid-70s of the 20th century, the approach to the issue of regional development and growth referring to bottom-up factors and resources of development has become increasingly important (Taylor, Stohr, 1981; Bassand et al., 1986). The concept of development “from below” in the formulated practical recommendations postulates the use of local resources and development factors, the increase of self-management, the activity of local and regional communities, and overcoming barriers and developmental difficulties, first of all, on their own strength. This approach refers directly to the idea of endogenous development and to the perspective of capturing socio-economic phenomena and processes on a local and regional scale. The change of perspective from global to local causes the importance of exogenous factors of development to endogenous ones to decrease. However, both external and internal factors are important for the pace and dynamics of development. In practice, factors of both types occur in different proportions and combinations, defining a region-specific development path. Proper use of exogenous factors, including external programs and funds, depends to a large extent on endogenous determinants, mainly on the efficiency of regional elites, who are able to competently and efficiently use external developmental impulses to accelerate structural change, the aim of which is to adapt the characteristics of a given region to current and future development mechanisms and the corresponding location criteria (Gorzelak, 2009).

Under the conditions of globalization, the phenomena of polarization and territorialisation of socio-economic development are observed to intensify and deepen, which is not conducive to achieving a state of equilibrium (Jewtuchowicz, 2005). On the one hand, centers of dynamic and innovative development are being created, on the other hand, peripheral and marginalized regions, which, aware of their delays, join the inter-regional competition to meet the contemporary development challenges (Churski, 2011; Tuziak, 2013). Regional disparities in development processes have multiple causes. It results, among other things, from the different capacities of individual regions to create an institutional, administrative, R&D, financial, etc. environment. For the creation and operation of innovative enterprises (Aydalot, 1986; Saxenian, 1994; Florida, 2004; Jewtuchowicz, 2005). Inter-regional differences in the pace and level of development processes are also due to the growing role of territorial links of production systems, the size and quality of human and social capital, as well as the historical conditions of development of individual regions.

The traditional perception of regional development, emphasizing the importance of economic and spatial factors, has been replaced by a multi-faceted and multidimensional approach to this process. In theoretical analyses and practical recommendations, the importance of qualitative factors of business location is increasingly emphasized. Qualitative criteria in the form of qualifications of the labor force, efficiency of public administration, living conditions and natural environment, diversification of the economic structure and development of the broadly understood communication infrastructure have become important assets of the region in competition for innovative capital (Jałowicki, Szczepański, Gorzelak, 2007). From this perspective, regional development is understood as a balanced coexistence of economic, socio-cultural and political phenomena (Hryniewicz, 2000).

According to the assumptions of the theory of sustainable development, it is assumed that the socio-cultural factors occurring in a given area, among others, the level of living of the inhabitants – their health and safety, the social climate, the quality of the natural environment. This approach to regional development is similar to the definition of social development understood as social change, i.e. transformation of one or more elements of the social system (Krzysztofek, Szczepański, 2002).

Sustainable regional development in the context of peripherality and innovation: A global perspective

Sustainable development is the subject of research and analysis in various spatial dimensions, as well as in many spheres of functioning of modern economies and societies (Tuziak, 2010). The essence of sustainable development in the region dimension is to counteract excessive regional disparities and to strive for the balanced development of regions, as well as

pro-development oriented and optimal use of the available resources. Globalization processes cause changes in the external environment of the functioning of regions in the social and economic dimension. Contemporary development trends consist in moving away from existing growth factors (capital, land, labour force) to own resources owned by the regions, such as convenient geographical location, the state of the natural environment and natural values, the level of development of technological, communication, social and cultural infrastructure (Świąder, 2012, p. 135). Structural changes in the global economy include a clear increase in the importance of the service sector and a simultaneous decline in the importance of heavy industry and traditional manufacturing industries for innovative sectors and industries (Tuziak, 2019, 2021).

The new system of dependencies and connections on a global scale is manifested, among other things, in asymmetrical relations between centers and peripheries. In contemporary, non-spatial concepts of regional peripherality, the underdevelopment of information society infrastructure, low levels of social and human capital, underdeveloped civil society, inefficient and weak networks of local enterprises, low levels of institutional density and poor links of the region with the global environment (Olechnicka, 2004) are considered its main determinants. The state of peripherality is often associated with problems of inequality, marginalization and underdevelopment. The negative phenomena resulting from peripherality are particularly evident in the relations between centers and peripheral areas. The predominance of the center over the periphery manifests itself in the economic, political, social, cultural and institutional spheres. It is possible to reduce it and to compensate for disparities and developmental differences by launching a mechanism of socio-economic development based on endogenous resources and potentials, among which innovation plays a fundamental role in the broad sense.

In the literature of regional studies, two main groups of theories relating to the development of regions that are attributed the characteristics of peripherality can be identified (Taylor, Stohr, 1981; Grosse, 2007). The first refers to the mechanism of development based on exogenous factors, and the second refers to development using endogenous resources. The basic thesis of the concept of exogenous development is that the development of peripheral areas cannot be initiated using only their internal potential, because it is insufficient, often poorly realized and unrecognized. On the grounds of the theory of exogenous development, the assumption is made that there is a natural spill over of technological innovation, experience and capital from highly developed regions to peripheral ones. The outermost regions should seek external investment capital and create conditions for the transfer of advanced technologies. They should also follow the path of development and draw on the experience of the most developed countries and regions. According to the concept of exogenous development, there is a division into countries and regions that create high-tech innovations and those that only try to implement modern, innovative production and organizational solutions. A major problem for the outermost regions is the low absorption capacity to attract external investors and the use of development support funds. The concepts of exogenous development adopt a linear development scheme and

a hierarchical structure of regions. Its summit is formed by megacities, and at the bottom there are peripheral areas, which develop thanks to the spilling of development processes from highly developed regions. The exogenous development scheme excludes the diversity of development paths of peripheral regions and the possibility of skipping ("skipping") stages of development.

The concepts of endogenous development assume that sustainable development should be based on the region's own resources and potential. The use of internal factors and the concentration of capital and knowledge in the region allow the periphery to avoid development dependent on domestic centers and foreign investors (Grosse, 2007; Stimson, Stough, Nijkamp, 2011). On the basis of the concept of endogenous development, the principle of the free spilling of development from the center to the periphery is questioned. It is emphasized that global free-market processes foster the accumulation of capital, knowledge, human resources and entrepreneurship in the central regions, while peripheral areas are becoming increasingly marginalized, becoming only a source of resources and a market for dynamically developing centers. In the outermost regions, it is difficult to initiate processes of capital accumulation, knowledge and innovation, and of social and institutional capital accumulation. Endogenous development concepts assume that each region has a specific set of characteristics and resources that create its development potential. It recognizes the importance of external factors and the benefits of transferring experience, technology and institutional solutions, provided that they are adapted to regional specificities and development needs.

Uneven spatial concentration of regional development, resulting, among other things, in the peripheralization of some areas, is the subject of analysis within the framework of the theory of growth poles (Perroux 1955). According to this concept, economic development is not balanced, sustainable, but point (island), that is, concentrated in the most developed enterprises, sectors and fields of industrial activity, which form the so-called growth poles, which are the driving force of the whole economy. These innovative, competitive, highly developed entities have an extensive, well-developed network of cooperative links with other companies, research and public authorities (Elvekrok, Velfen, Nilsen, Gausdal, 2018). They effectively obtain a monopoly position, subordinating and making other market players dependent on them. The theory of growth poles also applies to the most developed regions. They attract companies from high-tech, globally competitive industries. Economic activity is concentrated in areas with a high level of development, mainly in metropolitan regions. They gain a lasting advantage in economic competition, strengthen their position in relation to the outermost regions, making them dependent on their own economic and trade policy (Grosse, 2002, p. 28; Tuziak, 2019, pp. 135-136).

On the assumption that the imbalance of socio-economic development is the result of uneven growth of economic sectors and spatial disparities in regional development, the concept of geographical growth centers is based (Hirschmann, 1958). Thanks to the dynamic economic expansion of growth centers, resulting from the activity of motor units located in them (enterprises, clusters, economic sectors), development is spread to neighboring regions.

Geographical growth centers are therefore a strong stimulator of development processes of uneven character. Innovation is the basis for the polarization of development, and the accumulation of their effects in growth centers gives them a dominant position compared to less developed areas. The dominance of growth centers is mainly due to their ability to innovate and provide competitive advantages in terms of organization and production technology.

Territorialisation and spatial diversity of development are the subject of research and analysis leading to the conclusion that regional disparities and inequalities are often the result of a long historical process in which economic, social and cultural factors accumulate and interact (Myrdal, 1957). The mutual strengthening of economic, socio-political and cultural causes the deepening of the diversity of development in space. The widening of the development gap between areas of intensive growth (central regions, metropolises) and peripheral areas is facilitated by the phenomenon of cumulative and circular causality, which is in fact a self-repeating mechanism of a vicious cycle that perpetuates and deepens the development gap between centers and peripheries. Growing regional disparities mean that the growth poles (central regions), which are the place of concentration of new locations of economic activity, are developing faster and faster, and areas of economic stagnation are increasingly subordinated economically, politically and culturally to the growth poles. However, some positive effects of the spread of development outside the centers are accompanied by the effect of leaching, i.e. draining the development resources of peripheral regions and their progressive dependence on highly developed regions. Innovations are the basis for the polarization of development, and the accumulation of economic benefits from them in the growth poles makes them dominate less developed areas, exploiting their endogenous resources and perpetuating marginalization. In a situation of progressive divergence, sustainable regional development becomes practically impossible (Wójcik, 2008; Borowiec, 2018).

Polarization and uneven regional development is the main theme of analyzes within the core and periphery model (Friedmann, 1986). The core are highly developed areas, where the economic activities of the most competitive, innovative enterprises are located. The core regions dominate the periphery not only in the economic sphere, but also in the political and cultural sphere. Their advantage results, among other things, from the fact that they form a network of connections and territorial systems characterized by a high level of ability to innovate (Gałązka, 2017, p. 29). The centres contribute to initiating and stimulating the development process in the backward and peripheral regions, but it is subordinated to the objectives and needs of the central areas. The core-periphery model is a spatial scheme of the regional system structure, which is based on the assumption of uneven development. The core region is characterized by a high level of development in contrast to the peripheral region, which remains dependent on the core, deepening the state of underdevelopment and marginalization. The ability to produce innovation and significant development potential are the characteristics of core areas (Tuziak, 2017, p. 137). Their growth is based on diverse effects and, above all,

on innovation related to the concentration of high-quality human capital and social capital in core areas as factors conducive to the production of innovation and interconnections of stimulating innovation processes. Core areas affect the environment by creating and consolidating market, administrative and economic dependence, hierarchical relationships, developmental impulses, strengthening self-reliance and the exchange of people, goods and information (Dominiak, Churski, 2012, p. 60). They are more interested in maintaining development asymmetry than in pursuing harmonious, sustainable development in the regional dimension.

The theoretical concepts based on the assumption of spatial unevenness of development refer to the considerations and analyzes of Manuel Castels (2007). In the context of globalization, economic growth is mainly generated by global metropolises and technopolies, as well as by the most developed industrial regions. These areas dominate the rest of the world in economic, political and cultural terms. Metropolises and technopolies concentrate the highest economic, technological, innovative and financial potential, making them the main centers of economic growth and the creation of new knowledge on a global scale. The modern, computerized and organized world economy is networked. It surrounds the globe with a system of dense multidirectional connections and communication channels, through which information, scientific knowledge, technologies, goods, financial resources flow. The network structure enables global transfers of capital, products and innovation between all actors active in the global economy. The density and interdependence of connections is increasingly characteristic of modern society. It takes on the structural and functional characteristics of a network society, which is expressed, among other things, in the growing role of the global economic and political elites initiating and controlling global processes.

Summary

In the context of the characteristics and analyzes presented in the article, it is concluded that the chances of peripheral regions entering the path of sustainable development are increasingly determined by endogenous factors. They are mainly socio-cultural in nature and relate, *inter alia*, to the quality of human and social capital, the ability to create innovation, as well as to the quality and density of networks of cooperation and links between entities forming the regional innovation system, i.e. enterprises, public administration, the sphere of science and business environment institutions.

The ability to adapt quickly and optimally to permanent changes in the external environment is, in the context of globalization and increasing economic competition, decisive for the functioning and development of enterprises as well as entire regions and countries.

Only a creative and innovative and adaptive response to changes really increases development opportunities, ensuring a better position in the competitive fight.

Socio-economic processes occurring on a global scale in different ways are manifested at the regional level in new relationships and dependencies resulting from global development trends. Practical recommendations in this situation boil down to the suggestion that regional authorities should take effective action to develop the awareness and culture of the innovative society and the location of innovative enterprises on their territory, which create modern jobs and drive development and progress. In addition, they make it possible to gain a competitive advantage in inter-regional competition, which is conducive to equalizing development disparities and emerging from a state of marginalization and peripherality.

The use of a regional resource of development factors to create a competitive and innovative economy does not necessarily mean a radical break with the past. It may refer to existing development resources and traditions in the sphere of social and economic activity. In the context of the conditions determined by the process of globalization, a model of regional development emerges, in which two areas can be distinguished. The first area involves the innovative development of an already existing resource of development factors linked to traditional regional economic activities. The second sphere is the consistent building of a new resource for the endogenous, balanced and sustainable development of the region in the form of support for high-tech industries.

References

1. Aydalot, Ph. (1986). *Trajectoires technologiques et milieux innovateurs*. In: Ph. Aydalot (ed.), *Milieux innovateurs en Europe*. Paris: GREMI.
2. Bassand, M., Brugger, E.A., Bryden, J.M., Friedmann, J., Stuckey, B. (eds.) (1986). *Self-reliant development in Europe. Theory, problems, actions*. Aldershot: Gower.
3. Borowiec, J. (2018). Konwergencja regionalna w Unii Europejskiej w latach 2000-2016. *Prace Naukowe Uniwersytetu Ekonomicznego*, z. 536, 39-48.
4. Castells, M. (2007). *Spółeczeństwo sieci*. Warszawa: PWN.
5. Chojnicki, Z. (2004). Problematyka metodologiczna studiów regionalnych. *Studia Regionalne i Lokalne*, 4(18), 5-11.
6. Churski, P. (ed.) (2011). Zróźnicowanie regionalne w Polsce. *Biuletyn KPZK PAN*, z. 248. Warszawa.
7. Dominiak, J., Churski, P. (2012). Rola innowacji w kształtowaniu regionów wzrostu i stagnacji gospodarczej w Polsce. *Studia Regionalne i Lokalne*, 4(50), 55-60.
8. Dorożyński, T. (2011). Rozwój regionalny a globalizacja i regionalizacja gospodarki świata. *Prace Naukowe Uniwersytetu Ekonomicznego we Wrocławiu*, 221, 147-156.

9. Dziemianowicz, W. (1997). *Kapitał zagraniczny a rozwój regionalny i lokalny w Polsce*. Warszawa: EUROREG, Uniwersytet Warszawski.
10. Elvekrok, I., Velfen, N., Nilsen, E.R., Gausdal, A.H. (2018). Firm innovation benefits from regional triple-helix networks. *Regional Studies*, 52(9), 1214-1224. DOI: 10.1080/003443404.2017.1370086.
11. Florida, R. (2004). *The Rise of the Creative Class: And How It's Transforming Work, Leisure, Community and Everyday Live (Paperback)*. New York: Basic Books.
12. Friedmann, J. (1986). The World City Hypothesis. *Development and Change*, 17(1), 69-83. DOI: 10.1111/j.1467-7660.1986.tb00231.x.
13. Gałązka, A. (2017). Teoretyczne podstawy rozwoju regionalnego – wybrane teorie, czynniki i bariery rozwoju regionalnego. *Studia BAS*, no. 1(49), pp. 9-61.
14. Giddens, A. (2002). *Nowoczesność i tożsamość. „Ja” i społeczeństwo w epoce późnej nowoczesności*. Warszawa: PWN.
15. Głuszczyk, D. (2011). Istota rozwoju regionalnego i jego determinanty. *Ekonomia Economics. Prace Naukowe Uniwersytetu Ekonomicznego we Wrocławiu*, 5(17), 68-80.
16. Gorzelak, G. (2009). Fakty i mity rozwoju regionalnego. *Studia Regionalne i Lokalne*, No. 2(36), 5-27.
17. Grillitsch, M. (2019). Following or breaking regional development paths: on the role and capability of the innovative entrepreneur. *Regional Studies*, 53(5), 681-691. DOI: 10.1080/00343404.2018.14634336.
18. Grosse, T.G. (2002). Przegląd koncepcji teoretycznych rozwoju regionalnego. *Studia Regionalne i Lokalne*, 1(8), 25-48.
19. Grosse, T.G. (2007). *Innowacyjna gospodarka na peryferiach?* Warszawa: Fundacja Instytut Spraw Publicznych.
20. Hirschman, A.O. (1958). *The strategy of economic development*. New Haven: Yale University Press.
21. Hryniewicz, J. (2000). Endo- i egzogenne czynniki rozwoju gospodarczego gmin i regionów. *Studia Regionalne i Lokalne*, 2, 53-77.
22. Isard, W. (1969). *General Theory. Social, Political, Economical and Regional*. Cambridge, MA: MIT Press.
23. Jałowiecki, B. (2007). *Globalny świat metropolii*. Warszawa: Scholar.
24. Jałowiecki, B., Szczepański, M.S., Gorzelak, G. (2007). *Rozwój lokalny i regionalny w perspektywie socjologicznej*. Tychy: Śląskie Wydawnictwo Naukowe, Wyższa Szkoła Zarządzania i Nauk Społecznych w Tychach.
25. Jewtuchowicz, A. (2005). *Terytorium i współczesne dylematy jego rozwoju*. Łódź: Wydawnictwo Uniwersytetu Łódzkiego.
26. Krzysztofek, K., Szczepański, M.S. (2002). *Zrozumieć rozwój. Od społeczeństw tradycyjnych do informacyjnych*. Katowice: Wydawnictwo Uniwersytetu Śląskiego.

27. Łażniewska, E. (2022). *Gospodarka cyfrowa – rozwój regionalny – odporność*. Poznań: Uniwersytet Ekonomiczny w Poznaniu.
28. Myrdal, G. (1957). *Economic Theory and Underdeveloped Regions*. London: Duckworth.
29. Olechnicka, A. (2004). *Regiony peryferyjne w gospodarce informacyjnej*. Warszawa: Centrum Europejskich Studiów Regionalnych i Lokalnych UW, Scholar.
30. Oniszczyk-Jastrzębek, A. (2011). Polityka innowacyjna państwa a proces globalizacji. *Prace Naukowe Uniwersytetu Ekonomicznego we Wrocławiu*, 221, 491-499.
31. Perroux, F. (1955). Note sur la notion de pole de croissance. *Economie Appliquee*, 1-2(7), 307-320.
32. Pietraś, M. (ed.) (2002). *Oblicza procesów globalizacji*. Lublin: Wydawnictwo Uniwersytetu Marii Curie-Skłodowskiej.
33. Sagan, I. (2007). *Teorie rozwoju regionalnego i ich praktyczne zastosowanie*. In: G. Gorzelak, A. Tucholska (eds.), *Rozwój, region, przestrzeń*. Warszawa: Ministerstwo Rozwoju Regionalnego, Centrum Europejskich Studiów Regionalnych i Lokalnych UW (EUROREG).
34. Saxenian, A.L. (1994). *Regional Advantage. Culture and Competition in Silicon Valley and Route 128*. Cambridge, MA: Harvard University Press.
35. Stackelberg, K. von, Hahne U. (2011). *Teorie rozwoju regionalnego*. In: M.S. Szczepański, A. Śliz, R. Geisler, B. Cymbrowski (eds.), *Socjologia regionu i społeczności lokalnych. Antologia*. Opole: Wydawnictwo Uniwersytetu Opolskiego.
36. Stimson, R., Stough, R.R., Nijkamp, P. (2011). *Endogenous regional development. Perspectives, Measurement and empirical investigation*. Aldershot: Edward Elgar Publishing Ltd.
37. Świąder, M. (2015). Zrównoważony rozwój regionalny. *Acta Universitatis Wratislaviensis, No. 3656, Prawo CCCXVIII*, 131-146.
38. Taylor, D.R.F., Stohr, W.B. (1981). *Development from Above or Below? The Dialectics of Regional Planning in Developing Countries*. New York: John Wiley&Sons.
39. Tuziak, A. (2010). Socio-Economic Aspects of Sustainable Development on Global and Local Level. *Problems of Sustainable Development, Vol. 5(2)*, 39-49.
40. Tuziak, A. (2013). *Innowacyjność w endogenicznym rozwoju regionu peryferyjnego. Studium socjologiczne*. Warszawa: Scholar.
41. Tuziak, A. (2017). Innowacyjność i kapitał ludzki w rozwoju regionu. *Nierówności społeczne a Wzrost Gospodarczy*, 4(52), 106-120, DOI: 10.15584/nsawg.2017.4.7.
42. Tuziak, A. (2019). Peryferyjność a nierówności i dysproporcje rozwojowe na poziomie regionalnym. *Nierówności Społeczne a Wzrost Gospodarczy*, 3(59), 131-148. DOI: 10.15584/nsawg.2019.3.9.
43. Tuziak, A. (2021). Innvativeness as a resource for the development of a peripheral region, *Scientific Papers of Silesian University of Technology. Organization and Management Series, No. 152*. pp. 219-231, DOI: 10.29119/1641-3466. 2021.152.17

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44. Wnuk-Lipiński, E. (2004). *Świat międzyepoki – globalizacja, demokracja, państwo narodowe*. Kraków: Wydawnictwo Znak, Instytut Studiów Politycznych PAN.
 45. Wójcik, P. (2008). Dywergencja czy konwergencja: dynamika rozwoju polskich regionów. *Studia Regionalne i Lokalne*, 2(32), 41-60.