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**Problemy ekonomii,  
polityki ekonomicznej  
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## Spis treści

<b>Wstęp</b> .....	9
<b>Agnieszka Barczak:</b> Sezonowość i prognozowanie ruchu pasażerskiego w transporcie lotniczym na przykładzie Portu Lotniczego Szczecin-Goleńców / Air passenger traffic forecasting and seasonality on the example of Szczecin-Goleńców Airport .....	11
<b>Iwona Bąk, Beata Szczecińska:</b> Przestrzenne zróżnicowanie województw Polski pod względem sytuacji społeczno-gospodarczej / Spatial differentiation of Polish voivodeships in terms of socio-economic situation .....	23
<b>Iwona Bąk, Beata Szczecińska:</b> Wykorzystanie statystycznej analizy danych do oceny rynku pracy w Polsce na tle krajów Unii Europejskiej / Application of statistical data analysis to evaluation of the labour market in Poland in comparison to the countries of the European Union .....	35
<b>Patrycja Chodnicka-Jaworska:</b> Determinanty ratingów kredytowych krajów strefy euro / Determinants of euro zone countries' credit ratings.....	47
<b>Piotr Chojnacki, Tomasz Kijek:</b> Wydatki na prace badawczo-rozwojowe a wartość rynkowa firm biotechnologicznych / R&D expenditures and market value of biotechnology firms .....	59
<b>Magdalena Cyrek:</b> Within and between sectoral sources of wage inequality across European Union countries / Wewnątrz- i międzysektorowe źródła nierówności płacowych pomiędzy państwami Unii Europejskiej .....	67
<b>Marta Czekaj:</b> Wybrane problemy sukcesji gospodarstw rolnych w Polsce / Selected problems of succession of farms in Poland.....	77
<b>Mieczysław Dobija:</b> Ekonomia pracy. Gospodarka bez deficytu z ograniczonymi podatkami / Economics of labor. Deficit free economy with limited taxes .....	90
<b>Małgorzata Magdalena Hybka:</b> Personal income tax expenditures in Germany and Poland / Preferencje w podatku dochodowym od osób fizycznych w Niemczech i w Polsce .....	104
<b>Marcin Idzik:</b> Financial inclusion in Poland in the segment of young consumers / Inkluzja finansowa w Polsce w segmencie młodych konsumentów...	115
<b>Dorota Jegorow:</b> Ekonomia próżni – wyzwania rozwojowe / Economics of emptiness – developmental challenges.....	126
<b>Elżbieta Jędrych:</b> Innowacje społeczne w przedsiębiorstwach / Social innovations in enterprises .....	134

<b>Marcin Jędrzejczyk:</b> Kwantytatywna formuła wyznaczania kursu centralnego w procesie rozszerzania unii walutowej / Quantitative formula to determine central rate in the process of monetary union extension.....	144
<b>Adam Karbowski:</b> Strategiczne znaczenie kosztu stałego ustanowienia współpracy badawczo-rozwojowej przedsiębiorstw / Strategic meaning of the fixed set-up cost of R&D cooperation .....	154
<b>Wojciech Kisiała:</b> Nierówności regionalne a wzrost gospodarczy – weryfikacja hipotezy odwróconego U Williamsona / Regional inequalities vs. economic growth – testing Williamson’s inverted U-curve hypothesis	167
<b>Krzysztof Kluza:</b> Wpływ wzrostu stóp procentowych na ryzyko kredytowe jednostek samorządu terytorialnego / Effect of higher interest rates on credit risk of local government units .....	178
<b>Iwona Kowalska:</b> Konsekwencje finansowe dla gmin podwyższenia wieku obowiązku szkolnego / Financial consequences of raised school starting age for communes.....	194
<b>Joanna Kuczevska, Sylwia Morawska:</b> Court Excellence Model jako narzędzie poprawy sprawności organizacyjnej sądów / Court Excellence Model as a tool of improving the organizational efficiency of courts .....	206
<b>Paweł Kulpaka:</b> Niezachowanie względnego parytetu siły nabywczej w wybranych krajach członkowskich strefy euro w latach 1999-2015 / Disturbance of the relative purchasing power parity in the selected Member States of the eurozone in the years 1999-2015 .....	219
<b>Maria Miczyńska-Kowalska:</b> Szanse i zagrożenia rynku pracy województwa lubelskiego na obszarach wiejskich / Opportunities and threats of the labour market in rural areas of Lublin Voivodeship .....	230
<b>Teresa Miś:</b> Rola funduszy i programów UE w wielofunkcyjnym rozwoju obszarów wiejskich / The role of EU funds and programs in multifunctional rural areas development .....	241
<b>Dawid Obrzeźgiewicz:</b> Wpływ podatku od towarów i usług na płynność finansową przedsiębiorstwa / Impact of VAT on financial liquidity of company.....	253
<b>Tetiana Paientko:</b> Public debt in Ukraine: irrational management and risks leading to corruption / Dług publiczny Ukrainy: zarządzanie irracjonalne i zagrożenia prowadzące do korupcji .....	265
<b>Kateryna Proskura:</b> Concept and rules of thin capitalization as means of minimizing tax load / Koncepcje i zasady niedostatecznej kapitalizacji jako środki minimalizacji obciążeń podatkowych.....	274
<b>Jurij Renkas:</b> Ekonomia pracy. Teoria godziwych wynagrodzeń / Economics of labor. Theory of fair remuneration .....	284
<b>Viktor Shevchuk, Agnieszka Żyra:</b> Światowe ceny metali a wzrost gospodarczy w krajach Europy Środkowej i Wschodniej / World metal prices vs. economic growth in the Central and East European countries .....	302

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<b>Jerzy Sokolowski:</b> Czynniki kształtujące strategie cenowe sprzedaży usług przez hotele / Strategies in shaping the price sales for hotel services .....	315
<b>Joanna Stefaniak:</b> Usługi w nowej strategii rynku wewnętrznego / Services in the New Single Market Strategy.....	324
<b>Maciej Szczepkowski:</b> Bezpośrednie inwestycje zagraniczne w Republice Czeskiej na tle Europy Środkowo-Wschodniej / Foreign direct investment in the Czech Republic in comparison to CEE region .....	335
<b>Anna Walczyk:</b> Formulation of the cluster development strategy – selected aspects / Formułowanie strategii rozwoju klastra – wybrane aspekty.....	344
<b>Adam Wasilewski:</b> Przesłanki i uwarunkowania instytucjonalnego wsparcia transferu innowacji do sektora przetwórstwa spożywczego / Premises and conditions of institutional support for the innovation transfer to the food processing sector.....	362
<b>Anna Wildowicz-Giegiel, Katarzyna Lewkowicz-Grzegorzczak:</b> Podatek dochodowy jako instrument redystrybucji dochodów w Polsce na tle krajów UE-28 / Personal income tax as an instrument of income redistribution in Poland against the background of EU-28 countries .....	374
<b>Michał Zaremba:</b> Wpływ globalnego kryzysu finansowego na nierównowagi wewnętrzne w strefie euro / Impact of global financial crisis on the internal imbalances in the euro area.....	384
<b>Jolanta Zawora:</b> Działalność gminy w Niemczech i Polsce – uwarunkowania prawne, organizacyjne i finansowe / Activities of municipalities in Germany and Poland – legal, organizational and financial factors .....	393
<b>Andrzej Zygula, Paweł Oleksy:</b> Polityka dywidendowa spółek notowanych na Giełdzie Papierów Wartościowych w Warszawie na przykładzie sektora handel / Dividend policy of companies listed on the Warsaw Stock Exchange on the example of the trading sector .....	405
<b>Jolanta Żukowska:</b> Geoeconomia nowej rzeczywistości / Geoeconomics of new reality .....	417

## Wstęp

*Problemy ekonomii, polityki ekonomicznej i finansów publicznych* wydajemy w serii Prace Naukowe Uniwersytetu Ekonomicznego we Wrocławiu. Niniejsza publikacja, stanowiąca pierwszą z czterech części materiałów konferencyjnych, zawiera 36 opracowań, w tym sześć w języku angielskim. Zostały one poświęcone aktualnym problemom naukowo-badawczym z zakresu teorii ekonomii, realizacji polityki ekonomicznej – w wymiarze mikro- i makroekonomicznym – oraz zagadnieniom związanym ze stanem finansów publicznych w Polsce i na świecie.

Liczne grono autorów prezentuje wyniki swoich dociekań naukowych w postaci teoretycznych i empirycznych analiz związanych z polityką fiskalną na szczeblu centralnym i samorządowym, wykorzystaniem instrumentów polityki podatkowej w odniesieniu do opodatkowania kapitału, pracy i konsumpcji oraz z problemami polityki pieniężnej i rynku kapitałowego w skali krajowej i międzynarodowej. Ponadto zeszyt zawiera opracowania dotyczące nierówności społecznych, polityki regionalnej i lokalnej, rozwoju produkcji rolnej, obszarów wiejskich i przetwórstwa spożywczego, problemów sektora usług turystycznych i transportowych, jak również rozwoju innowacyjności przedsiębiorstw, efektywności wydatków na B+R oraz polityki państwa w obszarze rynku pracy.

Publikacja nasza jest adresowana do środowisk naukowych i studentów wyższych uczelni oraz osób, które w praktyce zajmują się finansami publicznymi, współczesnymi problemami polityki ekonomicznej czy ekonomii. Poszczególne artykuły były recenzowane przez profesorów uniwersytetów, w większości kierowników katedr ekonomii lub polityki ekonomicznej. Za ich rzetelne recenzje chciałbym serdecznie podziękować. Dziękuję również pracownikom Katedry Ekonomii i Polityki Ekonomicznej Uniwersytetu Ekonomicznego we Wrocławiu oraz wszystkim osobom i instytucjom zaangażowanym w powstanie tej publikacji.

Jestem w pełni przekonany, że książka *Problemy ekonomii, polityki ekonomicznej i finansów publicznych* będzie Państwa inspirować do dalszych badań i dociekań naukowych oraz przyczyni się do powstania równie interesujących opracowań w przyszłości.

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## **FORMULATION OF THE CLUSTER DEVELOPMENT STRATEGY – SELECTED ASPECTS**

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## **FORMUŁOWANIE STRATEGII ROZWOJU KLASTRA – WYBRANE ASPEKTY**

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**Summary:** Increased interest in cluster development results, among others, from the role they play in the development of economic operators functioning in such an environment. At the basis of activities and success of clusters lies a strategy that designates development trends. It accounts for common resources and collaboration options for the participants, and also for constantly changing environment. Designing such a strategy should take the form of a continuous process, in which various aspects of cluster operation as a whole and the issues concerning the cluster participants are covered. The Desk Research method was employed, which included the analysis of all information submitted, i.e. available at websites, on cluster development strategies. Ten strategies were selected at random out of several accessible documents. The strategies were subjected to validation with the methods of cluster development strategy formulation. That was done with respect to the analysis-based theoretical concept of cluster and organisation development. The paper aims at identifying the most important issues in devising cluster development strategy (stages, structure and content), and their validation based on economic practice. The approach to formulating cluster development strategy, proposed in the paper, combines the most important aspects of cluster operation and development with the methodology of formulating organisation strategy worked out by marketing sciences. Although clusters are different, they share properties of varied significance, which are decisive for their development. Those properties should affect strategy distinctive features and set directions for its formulation. The investigations demonstrate that in economic practice, cluster development strategies vary with respect to scope, formulation methods, and the content. Not all strategies examined comprise the components required, which indicates those are incomplete, they consequently lack complexity or integrity.

**Keywords:** cluster, development strategy, strategy formulation methodology.

**Streszczenie:** Wzrost zainteresowania rozwojem klastrów wiąże się z ich rolą w rozwoju podmiotów w nich funkcjonujących. Fundamentem działalności i sukcesu klastra jest posiadanie strategii nakreślającej kierunki rozwoju, uwzględniającej wspólne zasoby i możliwości współpracy podmiotów oraz ciągle zmieniające się otoczenie. Budowanie takiej strategii powinno przybrać formę procesu o charakterze ciągłym i rozwojowym, w którym uwzględniane będą różne aspekty funkcjonowania klastra jako całości oraz poszczególnych jego podmio-

tów. Zastosowano metodę Desk Research – analizę materiałów zastanych, czyli zamieszczonych na stronach www strategii rozwoju klastrów. Spośród kilkunastu dostępnych dokumentów, metodą doboru losowego prostego wybrano dziesięć strategii. Celem artykułu jest identyfikacja najważniejszych aspektów formułowania strategii rozwoju klastrów (etapów, struktury i treści), oraz ich weryfikacja w praktyce gospodarczej. Celem naukowym artykułu jest doskonalenie metodologii formułowania strategii rozwoju klastrów. Zaproponowane w artykule podejście łączy najważniejsze aspekty funkcjonowania i rozwoju klastra z wypracowaną na gruncie nauk o zarządzaniu metodologią formułowania strategii organizacji. Chociaż każdy klastery jest inny, to jednak posiadają one wspólne cechy o różnym stopniu ważności, które decydują o ich rozwoju. Cechy te powinny nadać charakter strategii oraz ukierunkować proces jej formułowania. Przeprowadzone badania wykazały, że strategie rozwoju klastrów w praktyce gospodarczej różnią się pod względem objętości, metodologii formułowania oraz treści. Nie wszystkie badane strategie zawierają wymagane elementy, co świadczy o ich niekompletności, a w konsekwencji o braku kompleksowości i spójności.

**Słowa kluczowe:** klastery, strategia rozwoju, metodologia formułowania strategii.

## 1. Introduction

Faced with the challenges posed by the conditions of operation in contemporary times, characterised by turbulent changes in economy, society and the environment, economic entities seek such modes of operation that would facilitate market success. That is vital, because presently, as never before, so many resources and skills necessary for a company to achieve success are located outside the firm, thus beyond the direct control of its management. It is therefore necessary to seek collaboration with partners, which is reflected in establishing networks, coalitions and alliances. That happens at various levels, local, national and also international. Such cooperation should: (1) be sought not only to carry out individual projects, but rather be aimed at long-term time scale, (2) recognise that the primary objective is not mere resource sharing, but a reduction in the level of failure risk, (3) be established on many levels, with many participants involved, who represent different lines of business and environments, (4) not be focused on individual tasks, but have a systemic character, which implies that at various stages of the process new partners may be brought in, (5) be characterised by mutual trust of the partners [Hamel 2006]. The assumptions for economic cooperation described above indicate how complex it is. The cooperation makes it necessary to adopt a consistent and flexible approach, allowing for validation and updating of solutions. In the fast changing environment, such cooperation is extremely difficult.

Cluster is one of the forms of organised activities, which to a large extent allows the participants to collaborate in the manner described above. It is a certain form of a network established by businesses and the supporting institutions, compliant with a modern approach to the organisation, nature and effectiveness of the economic processes. Clusters are thought to be of key importance for the competitiveness and



innovation in businesses being cluster participants [Walczyk 2013]. They are also perceived to be of value to science, research and educational institutions [Bartosik 2010] as they contribute to their development, which in turn facilitates regional development, and indirectly the growth of economy.

Presently observed cluster development occurs on a larger scale than that of other forms of business concentration, cooperation and entrepreneurship formation [Molenda-Grysa 2012] which results from the challenges posed by contemporary environment. Those originate in both globalisation and regionalisation processes. Clusters are formed through bottom-up initiatives of the entities concerned, or top-down initiatives of local governments.

As shown in the results of numerous investigations into clusters, not all of them are successful [Walczyk 2014]. One of the reasons is that they occasionally have not been able to orient their activities in relation to a long term perspective with respect to determining objectives, cooperation area and achievable benefits. Consequently, the strategy aimed at multi-aspect stable cluster development is either not available or incomplete. Therefore, it is extremely important that cluster development strategy, resulting from strategic thinking, should follow proper methodology and have well-defined content.

## 2. Cluster properties important for strategy formulation

Clusters are in the scope of interest of both economic science and practice. Due to observations and investigations carried out for many years, it has been possible to confirm the diversity of such structures, and to identify many aspects of their operation.

According to M.E. Porter [2001, p. 81] “Clusters are geographic concentrations of interconnected companies, specialized suppliers, services, companies operating in related industries and associated institutions (universities, research, standardization and trade associations) in specific areas, competing or cooperating”.

Cluster is perceived as a multidimensional phenomenon, where organisations from different industries cooperate, thus forming a structure based on a network of relations [Steinle, Schile 2002].

Essential cluster properties, identified on the basis of observations and investigations [Mikołajczyk et al. 2009; *Kierunki rozwoju klastrów...* 2009; Gorynia, Jankowska 2008] include the following:

- Geographical proximity of cluster-forming entities. That involves spatial concentration of businesses emerging around a large company. The participation of members located far away, however, is not excluded, as they can take part in some cluster activities, e.g. research and development. Labour concentration is in the cluster activity area, which exceeds the country's mean value, being also one of the characteristics.
- Diversity of cluster members. Those include firms, research institutions, universities, central and local government bodies and related units.

- Members represent the same, or related industries (modern or traditional). That facilitates specialisation in a given area, sharing common technologies and skills, and also using the same business-related services.
- Coopetition of companies, which comprises both competition and cooperation. That makes the relations between economic entities involve both competition and collaboration. Competition enforces continuous progress, innovation and improves effectiveness. Collaboration, on the other hand, contributes to joint potential and expertise of cluster members, which makes it possible to carry out activities that could not be performed by individual companies.
- Cooperation and strong bonds between cluster members. Interaction involves working towards common objective, which is based on mutual trust. That results in an increase in effectiveness of activities performed by cluster residents (e.g., through joint purchase, distribution channels, communication platforms, promotion strategies, scale effects, etc.). Collaboration with research and business-related institutions facilitates access to the latest technologies, innovation transfer and personnel development. Cooperation with governmental bodies improves cluster's conditions of operation, and provides financial support, advisory services and infrastructure.
- Appropriate number of members, i.e. cluster critical mass, in Poland, for example, minimum ten members are needed to form a cluster.
- Cluster identity related to the formation of the structure, establishing common organisation culture, and a system for visual communication.

Cluster formation is stimulated by both globalisation processes and those occurring in the regions. The first include increased market harmonization, growing importance of standards in technology and procedures, and growing international recognition of intellectual property rights [Gorynia, Jankowska 2008]. Regional processes that stimulate cluster formation are manifested in the use of local natural, material and human resources. Those phenomena contribute to the development of information technology and telecommunication, which enhance the flow rate and safety in the transfer of people and goods, and at the same time reduce the costs. All these factors lead to the concentration of business activities at national, regional and international level.

In addition to global and regional processes, other stimuli for cluster formation include economic effects, namely scale advantage and reduction in transaction costs.

Scale advantages can be internal and external in character. In accordance with the modern agglomeration theory, internal scale advantages are the factors that explain the reasons for business activity concentration in a specific location [Gorynia, Jankowska 2008]. External scale advantages make cluster become a specific industry resource, formed in the process of location, and conducting the same, or similar business activity in the same region. Geographical proximity facilitates the formation of bonds between entities and provides a stimulus to cluster formation.

Reduction in transaction costs is one of the most important reasons for residency in clusters [Walczyk 2012]. The reduction is possible due to relations between firms, which contributes to the regularity of supplies of resources and services to client companies. Repeatability of transactions lowers the costs of seeking contracting parties, and also the costs related to drawing up the contract. Additionally, firm operation in clusters broadens experience and establishes interpersonal relations, which lowers costs related to coordination in transaction management and monitoring. Reduction in transaction costs is enhanced by geographical proximity of cluster residents, because it decreases transportation and travel costs, termed as “geographic transaction costs”.

**Table 1.** Benefits from cluster residency

Entities	Advantage characteristics
Firms	Those result from establishing regular, or project-related collaboration with other cluster members. They are found in many areas of activities and are generally quantitative (measurable) in character. The typical ones include: increased specialisation and innovation, better use of available resources and production options, broadened knowledge, better access to information, new solutions and business activities, reduction in costs, including transaction costs, possibility of carrying out large projects, staff potential development, increase in brand equity, better adaptability to changing environment.
Science, research and educational institutions	Those result from options offered by collaboration with other cluster members. They produce advantageous effect on information and knowledge transfer, commercialisation of research outcomes, researcher development, the development of the environment that facilitates the start of <i>spin-out</i> and <i>spin-off</i> firms established by individuals related to the academic community. Activities within cluster make it easier to join international research groups and provide benchmarking of scientific findings, better position of university or research institution in relations with business and authorities, exchange of ideas and experience concerning forms of collaboration between research, economy and local government. In education, the learning content is better fitted to the needs of the industry businesses, which makes it easier for the graduates to land a job.
Region	Those result from the effect produced by outcomes of collaboration of cluster members on the region's economic and social development. Clusters offer firms better conditions of operation (access to specialised suppliers, services and labour market). Local and/or trade networks of small and medium-sized companies are strengthened. The quality of knowledge is improved, possibilities of learning at the level lower than the national one are increased. In a given area, strong and competitive clusters facilitate faster economic development of the region and contribute to the growing wealth of a local society, which makes the region more competitive.

Source: [Żuber 2008; Mikołajczyk et al. 2009; Koszarek, Erlandson 2011; Afsarmanesh, Carmarinh-Matos 2005].

Observations and numerous investigations into cluster-related issues make it possible to identify advantages gained by individual cluster members, which result mainly from geographical proximity and their mutual relations (Table 1).

### 3. Concept of cluster development strategy

Organization strategy is one of basic management instruments. As seen in practice, under market economy conditions, good strategy has been a key factor in the success of many companies. On the other hand, many failures can be explained by strategic management errors. Strategy can be defined in a number of ways, most frequently, it is understood as purposeful action. When an organization is successful, that is generally assumed to result from a good strategy, i.e. specific, coherent and purposeful set of decisions and actions performed in a given time [Koźmiński, Piotrowski 1999]. Many definitions of strategy are found in sciences related to strategic marketing. In the present paper, the following definition has been adopted: “Strategy is the determination of the basic long-term objectives of an enterprise, and the adoption of courses of action and the allocation of resources necessary for carrying out these objectives”. Thus, it is a process of establishing by an organisation long-term objectives, drawing up plans and taking actions, and also allocating resources necessary to achieve those objectives. In other words, it is a program of defining and attaining objectives of an organisation, and also of carrying out company mission [Żuber 2008].

Strategies are intended to operate from a few to several years. Constructing organisation strategy should be a continuous and progressive process, and not a single-event occurrence which leads to drawing up a document. The basis of strategy drafting should be provided by the results of a detailed analysis of internal and external environments (that of the macro-environment and competitive operators), in which special emphasis is put on development forecasts. The results lead to formulas that define long-term development of the organization, including mission, vision, strategic objectives, specific objectives and actions. For a strategy to operate, it is necessary to indicate funding source, and the means of performing and monitoring actions included in the document. The most important characteristic of strategy is flexibility, so that the strategy could be modified to accommodate internal or external changes.

Devising cluster development strategy is an extremely difficult task due to the complexity of the organization structure. That results from the diversity of operators who are cluster members, the nature of relations between them, different expectations and possibilities of action performing. To ensure effective cluster operation, its development and success, it is essential to adjust cluster strategy to the strategies of individual participants. Collaboration within cluster must be based on identifying common objectives that are possible to attain by individual members of the cluster and their mutual trust. At present, while formulating the cluster strategy, it is necessary to adopt the from-outside-to-inside approach. That means the environment is the starting point, and the internal conditions are taken into account later on [Frankowska 2012]. Thus, the final form of the cluster development strategy is

greatly affected by the condition and needs of the environment, competitiveness capacity of the industry, availability of technologies, expertise and funding sources.

The observations above indicate that the process of devising cluster strategy development (reflected in the structure of the document) should include the following stages:

1. Cluster characteristics (concept, the most important information) – history, basis and reasons for establishing cluster, cluster members and functions those perform.

2. Determination of the cluster development potential – the analysis of external and internal conditions at macro and micro level. The following factors need to be taken into account: the industry competitive capacity, the trends that affect the industry development, the potential of cluster residents and the relations holding between them (value chain). This stage should be concluded with the SWOT analysis, which could help identify strategic problems in the cluster development.

3. Cluster strategic identification – setting the directions for activities and development. That covers the vision, mission, objectives (tree of objectives) and the effects of accomplishing them. Important issues at this stage of the strategy formulation include indicating the sources of funding for activities related to cluster objectives, organisation and structure, and also the strategy monitoring system.

**Cluster characteristics.** At this stage a short description of the cluster is made. The information provided includes the foundation date, names of cluster initiators, coordinator and his/her tasks, legal status, operation area, properties and model type (open, closed). It is extremely important to present the membership structure i.e. *cluster mapping*, which gives the cluster residents and categorises them into firms, support institutions, R&D units. While presenting firms, it is necessary to specify their main area of operation, supporting institutions, size and the legal status. This component may also describe activities of the cluster performed so far, the effects of those, and collaboration of entities.

**Determining cluster development potential.** In devising cluster development strategy, the diagnosis of internal and external strategic potential is of key importance, as the results provide the basis for determining directions of cluster activities.

This stage should comprise:

*Analysis of the region's economic potential with respect to cluster.* That involves the analysis of regional strategy documentation with the focus on the region's main specialisations [Milek 2013] and support to cluster policy. The analysis also includes the importance the industry cluster represents in the economic structure of the region. That could be determined using selected indicators (net revenues from sales, rate of employment, exports volume, outlays on innovation) compared with those for the whole region. At this stage, natural, material and human resources of the region and competence in the existing institutions and business-related environment need to be assessed. That is vital for lobbying, attracting investors, negotiating services for companies located in the cluster, and also when applying for the EU funds.

*Analysis of the cluster external potential.* That involves the examination and assessment of the competitiveness capacity of the main part, or parts of the cluster activities, and also the identification of trends and factors that affect cluster development. It is therefore necessary to evaluate the importance of a given industry for the economy (contribution to GNP, the value of the marketed production, investment outlays, R&D outlays, employment, export volume) and its attractiveness. To evaluate the attractiveness, the Porter's five forces method could be used. The method makes it possible to gain knowledge on the intensity of competition in a given industry, bargaining power of customers and suppliers, possibilities of start-ups and threats from substitutes. Setting trends for the industry development should be comprehensive in character. Changes in the organisation and position of the industry (including the business-related institutions), relations with customers, added value of the products, and others need to be covered. When determining the cluster external potential, it is necessary to take into account the fact that the cluster operates in a wider context of macroeconomic factors and trends. Those factors are beyond the control of the companies located in the cluster, however, they must be closely observed and responded to. Those include political, legal, economic, social and cultural, and also technological aspects [Gierszewska, Romanowska 2014]. When using strategic analysis methods, such as PEST or the scenario method, it is essential to identify those factors, determine how they affect the cluster development, whether they produce a positive or negative effect, and how strong this impact is. The results of the analysis of the cluster external potential provide a basis for the evaluation of the attractiveness of operating in a given industry, and for specifying the main opportunities and threats. They also constitute an important aspect of the cluster internal potential, therefore they contribute to the drawing up of development actions for cluster members, which are consistent with world-wide trends.

*Analysis of the cluster external potential.* That includes the identification of resources, and also of present and potential market segments, on which cluster members operate. At this stage, it is most important to specify key products and areas of interest. A special emphasis should be given to unique competences and product specialisations. The analysis of the resources possessed by cluster residents can be presented in the form of a matrix of functions and resources, in accordance with Hofer and Schendel (Table 2).

On the basis of the analysis of resources and expertise, it is possible to define the area of joint activities, which could be profitable to all cluster members.

*Cluster SWOT analysis.* It comprises opportunities and threats, and also strengths and weaknesses, which affect the cluster competitiveness potential and can be used to determine development directions. The results of the analysis of the cluster potential, seen from the internal and external perspectives, provide a basis for distinguishing a group of problems that hamper cluster development, and to determine, e.g. the areas that need intervention.



**Table 2.** Matrix of cluster functions and resources

Function and resources	R+D	Production Services	Marketing	Finance	Management
Allocation of financial resources	Investments in research infrastructure. Trainings for personnel	Investments in production and technology infrastructure. Trainings for personnel	Outlays on promotion. Participation in fairs. Economic missions. Trainings for personnel	Funding sources. Own share in projects. Trainings for personnel	Information technology systems. Strategic analysis. Trainings for the company management
Physical resources	Laboratories. Equipment for design offices	Technological lines. Modern machines and equipment. Logistics infrastructure	Professional promotional materials. Internet website	Level of Information Technology provision. Value of assets	Equipment for the cluster meeting site. Equipment available to the company management
Human resources	Employment structure	Employment structure	Employment structure	Employment structure	Employment structure
Organisational resources	Certificates, patents granted, improvements introduced. Organizational modes	Quality management system. Production management methods. Production logistics	Market research. Distribution system. Trade and marketing expertise	Means of communication. Organisational structure. Controlling	Managerial expertise. Organisational culture. Leadership. Mechanisms of control and coordination
Technology and technical resources	Technology potential	Production capacity. Manufacturing potential	Cluster brand. Internet-based cooperation	Information technology system	Information technology system

Source: [Downar, Frankowska 2012].

**Cluster strategic identification.** Information collected in the strategic analysis makes it possible to recognize the fundamental issues of cluster existence, activities and development. This stage starts with the formulation of *cluster mission and vision*.

Mission can be treated as the cluster self-expression and gives answers to questions, such as why it should exist, how it is to operate, what it aims at, whose needs and in what way it is supposed to satisfy. The issues also concern the cluster role in the social context [Gierszewska 2003]. The mission should indicate cluster organizational identity, set directions for activities, refer to the future, and cover challenges that concern all cluster members [Obłój 2001]. For the mission to be effective, it is necessary that it should constitute a coherent business concept underlying the character of the cluster. The cluster residents must believe the mission

is feasible and that it successfully combines the common cluster values with their own ones [Bembenek 2012].

*Vision* should determine the concept of the model of the present and future cluster structure, of its operation and development defined by aspirations, creativity and imagination of cluster residents [Janasz, Janasz 2008]. Thus, the vision provides an optimistic image of the future possibilities, and in this way, it is a representation of the cluster structure and its position in the environment.

To carry out mission and vision, it is necessary to define *strategic objectives* of cluster activities and development with respect to strengths and weaknesses, and also opportunities and hazards specified in the SWOT analysis. The task requires a comprehensive approach, which includes the following components [PriceWaterhouseCoopers 2011]:

- strategic direction – the position the cluster intends to take up in the long-term perspective,
- range – the main activities to be focused on,
- competitive advantage – the key cluster strengths and the means of utilising them in the most effective way,
- resources – the way of utilising resources, which includes skills, infrastructure, finance, relations, technical competence.
- conditions – external (political, economic) factors that may affect the cluster development,
- interested entities – the major expectations of the key members and impact of those on cluster development.

Determination of common objectives is of key importance for cluster integration, gaining experience and trust, which are essential for further cooperation. The objectives must be appropriately formulated, precisely defined, measurable, realistic, scheduled, organised and logically interrelated. They have to offer advantages to cluster residents and related institutions. Typical range (strategic areas) of cluster objectives are [Koszarek, Erlandson 2011]:

- joint research and development,
- export promotion, new markets,
- education and education institutions,
- support to innovation and innovation implementation,
- joint application for government contract,
- benefits from scale advantage, cost reduction,
- joint marketing,
- provision of services for firms,
- lobbying.

The number of strategic (major) objectives should not be greater than four or five. When the strategic objectives are determined, it is necessary to state and describe, in a detailed manner, activities which ensure the accomplishment of those objectives. The effects, possible to be reached, and benefits for cluster members



should be assigned to activities. The effects are often specified for the strategy as a whole, due to the fact that objectives can be highly convergent. It is also essential to schedule the activities, categorizing them as short, medium and long-term ones, to define the potential sources of funding, instruments that could be used to measure the outcomes, and the participants engaged in the activities.

It is necessary to ensure favourable conditions so that the plan of activities drawn in the strategy could be implemented. For the plan to be efficient and successful, the system of cooperation must be built, based on the competence and reliability of the partners. That needs appropriate cluster *organization and structure*. It is therefore necessary to define the final form of cluster organization and its character (open, closed), and to indicate which entities can become cluster members. It is also important to specify the powers and responsibilities of the authorities and other bodies that are located in the cluster.

The final component of the development strategy consists in designing the *strategy implementation and monitoring system*. It will primarily allocate the responsibilities for the strategy implementation. It will also focus on the strategy implementation and on providing collaboration mechanisms, which coordinate and integrate activities, and also increase the effectiveness of the funds allocated to activities. The system should account for the regular observations of external and internal conditions, and the coherence between the activities and the adopted strategy. Monitoring should be applied to both the results of activities taken, and the cluster general development. The results of the monitoring will be helpful when taking corrective actions and complementing the strategy implementation plan.

#### **4. Cluster development strategies in economic practice**

First clusters started to emerge in Poland after 1989, but it is only in recent years that their dynamic development could be observed. In addition to being just fashionable, those created a welcome opportunity for less economically developed regions. A strong stimulus to cluster formation was provided by Poland's joining the European Union. The cluster concept present in the Europe Strategy 2020 is an important tool of economic policy [European Commission 2010]. In this document, cluster is regarded as a factor that contributes to the economic development under the conditions of strong global competition. That belief was reflected in the priorities chosen for Poland's economy. It was assumed that the competitiveness of Polish economy will increase both in the EU and on the global market. In this context, an important role was played by the support given to businesses seeking innovative solutions, which were largely facilitated by the company location in the cluster. The policy intended to support clusters was introduced already in the years 2004-2006, it was enhanced in the budget perspective 2007-2013. As a result, many clusters were formed, in 2014, their number was estimated at approx. 250 [Brante Partners 2015]. They operate in different sectors of the economy, and most frequently have the legal

status of an association or a commercial company. Many less formalized structures are also found.

Observations and investigations into this subject show, however, that not all clusters become successful. The question why that happens cannot be answered directly. The complexity and multiple aspects of the cluster structure imply that many reasons may be involved. Those could be related to the cluster formation stage, evaluation of the development potential, the selection of collaboration area and orientation of their activities. The reasons could also be associated with the social context, e.g. lack of trust between cluster members.

Therefore it seems necessary to identify and maximally minimize the possible causes of failures when the cluster is established and developed. To achieve that, it is vital to formulate cluster development strategy in a correct way. The strategy has to state, in a precise manner, what assets are delivered into clusters by individual members, what profits they can expect due to the location in the cluster, and what are means and time perspective in which those profits could be earned. Achieving that is only possible when all cluster members are engaged in designing the strategy and when proper methodology is used. As indicated in the present paper, the methodology of formulating cluster development strategy should include the following stages: (1) cluster identification, (2) determination of cluster development potential, and (3) cluster strategic identification. Those stages correspond to the structure of the strategy and its content.

As regards the practical aspects of cluster development strategies, an attempt was made to analyse actual cluster development strategies, which were validated against the methodology assumptions. Out of several documents available online, development strategies of the following clusters were selected at random:

1. Baltic Sea Eco-Energy Cluster – Bałtycki Klaster Ekoenergetyczny – BKE [*Strategia Rozwoju Bałtyckiego...* 2009].

2. Lower Silesia Tourism Cluster – Dolnośląski Klaster Turystyki – DKT [*Strategia Rozwoju Dolnośląskiego...* 2013].

3. Food Cluster in the Pomerania Province – Klaster Spożywczy w województwie pomorskim – KS [*Strategia Rozwoju Klastra Spożywczego...* 2008].

4. Tourism Cluster in Sopot – Klaster Turystyczny w Sopocie – SKT [*Strategia Rozwoju Klastra Turystycznego...* 2011].

5. Lubuski Metal Cluster – Lubuski Klaster Metalowy – LKM [*Strategia Rozwoju Lubuskiego...* 2013].

6. Mazovian Chemical Cluster – Mazowiecki Klaster Chemiczny – MKCH [*Strategia Rozwoju Mazowieckiego...* 2014].

7. Pomeranian Cluster ICT (now called INTERIZON Pomeranian Cluster ICT) – Pomorski Klaster ICT – PKICT [*Strategia Rozwoju Pomorskiego...* 2009].

8. West Pomeranian Sailing Cluster – Pomorski Klaster Żeglarski – PKŻ [*Strategia Rozwoju Pomorskiego...* 2013].

9. Greater Poland Furniture Cluster – Wielkopolski Klaster Meblarski – WKM [*Strategia Rozwoju Wielkopolskiego...* 2007].

10. West Pomeranian Timber and Furniture Cluster – Zachodniopomorski Klaster Drzewno-Meblarski – ZKD-M [*Strategiua Rozwoju Zachodniopomorskiego...* 2007].

Selected clusters represent eight industries and are located in different regions of Poland, but the majority of them are based in the north of the country.

The strategies of those clusters were developed in the following years: 2007 – WKM, ZKD-M, 2008 – KS, 2009 – BKE, PKICT, 2011 – SKT, 2013 – DKT, LKM, PKŻ, 2014 – MKCH.

The strategies clearly differ in the volume of the document, the number of pages is given for each cluster: BKE – 51, DKT – 118, KS – 70, SKT – 58, LKM – 20, MKCH – 49, PKICT – 108, PKŻ – 40, WKM – 113, ZKD-M – 47.

In seven of the documents of concern, emphasis was placed on the participation of all cluster members in devising the strategy in cooperation with external experts.

The analysis of the strategy structure in accordance with the proposed stages, and also of the content showed the following:

*Cluster characteristics:* In a majority of the strategies, present and potential members were presented and characterised, the group of founders was specified, legal status and the cluster model were given. Except for three cases, no information was available on the cooperation of the firms beforehand, which is important because cooperation is often a major factor in cluster formation.

*Determination of the cluster development potential.* All strategies analysed had this component, but differences could be seen in the methodology and the component location in the document. In five strategies, the analysis of the region's potential, as a support to cluster policy was not provided. The cluster engagement in the region's major specialisations is not indicated, either. Each strategy gives a detailed analysis of the sector in which cluster operates, it specifies the most characteristic features, the development potential, significance for the region and economy. Unfortunately, not all strategies present major trends that affect the global development of the sector, which could negatively affect the proper identification of opportunities and threats, or development problems in the industry, in which the cluster operates. In the strategies of concern, differences can be found in the determination of the cluster development potential, especially in the assessment of resources, skills and key competences, which help identify cluster strengths and weaknesses, and also collaboration area. In a few cases, this potential was determined in a very general way, with emphasis put on qualitative assessment. In the methodology of cluster development strategy, the SWOT analysis is given a prominent role, as it provides the basis for the strategy formulation. Therefore, the absence of this analysis in three documents seems puzzling.

*Cluster strategic identification.* In all the documents of concern, it can be seen that this strategy component was worked out on the basis of the results of determining

cluster development potential. The most important statements that substantiate cluster existence and govern its development, namely vision and mission, were correctly formulated from the standpoint of the assumptions. Both the vision and mission were translated into objectives, the range of which is presented in Table 3, and which provided a basis for constructing the tree of objectives.

**Table 3.** Range of strategic (major) objectives for selected clusters

Range of strategic (major) objectives	Entities – Clusters
Joint research and development	LKM, MKCH, WKM
Export promotion. New markets	BKE, LKM, MKCH, ZKD-M
Personnel. Education and education institutions	BKE, DKT, KS, LKM, PKICT, PKŽ, SKT, WKM, ZKD-M
Support to innovation and innovation implementation	DKT, KS, LKM, MKCH, PKICT, PKŽ, ZKD-M
Joint application for government contracts	DKT, MKCH
Benefits from scale advantage. Cost reduction	BKE, SKT, WKM, ZKD-M
Joint marketing	BKE, DKT, KS, LKM, PKICT, SKT, WKM
Development of cooperation between firms, support to firm development	DKT, KS, LKM, PKICT, PKŽ, SKT, WKM
Lobbying (for the cluster, industry, region)	BKE, DKT, KS, LKM, SKT, WKM, ZKD- M

Source: developed on the basis of the author's research.

The tree structures of the objectives of the development strategies vary, and they can be categorised into a few groups:

- a) Several strategic objectives. Each of those was accompanied with a short description and substantiated.
- b) A few strategic objectives. Activities were assigned to each of those, together with a description and an implementation plan.
- c) Four-five strategic objectives. Activities were assigned to each of those, together with a description and schedule, effects and potential source of funding.
- d) Primary objective, strategic objectives and operational objectives. Activities and entities performing those were assigned to operational objectives.
- e) Strategic objectives not accompanied by any description or explanation.
- f) Primary objective, areas of operation and objectives assigned to those, and expected outcomes.

The adopted structure of tree of objectives affected the form of their presentation, which in turn, influenced the detail level of this part of development strategies of selected clusters. Except for three documents, in majority of strategies, the formulation of development objectives was followed by indicating the sources of funding for attaining those objectives. Activities aimed at constructing such a cluster organization that would facilitate the accomplishment of objectives were described, yet most strategies focused on designing an effective system of partners' cooperation. The strategy implementation and monitoring system was the last component of

selected documents that was subjected to analysis. Such a system was absent from two documents, in the others, responsibility for strategy implementation and the assessment of the results of activities were assigned to the general cluster development. Only two documents emphasized the necessity of monitoring external and internal development conditions, and the coherence between the tasks performed and the adopted strategy.

## 5. Conclusions

Cluster has become an increasingly popular form of organizing economic activity. It allows members, representing various industries and backgrounds, to collaborate on different levels. The cluster constitutes a certain kind of network of firms and supporting institutions based in a specified geographical area. They contribute largely to the development of economic operators located in the cluster, and to their profit making, which results mainly from geographical proximity and relations between cluster residents.

The complexity of cluster structure, multitude of the aspects of its operation, fast varying environmental conditions and different expectations of the members sometimes result in failures. It is essential to properly orient the cluster activities. Cluster development strategy plays the most important role in this respect.

To construct cluster development strategy, it is necessary to:

- Engage the representatives of all cluster residents. That will contribute to the adjustment of the cluster development strategy to the development strategies of individual members.
- Design appropriate methodology for development strategy formulation. The methodology needs to combine knowledge of clustering with the methodology of formulating organisation development strategies. That will allow improvement in strategy correctness and cohesion.

In the paper, an attempt was made to systematize the components and content of cluster development strategy in order to improve the methodology of strategy formulation. On the basis of the analysis, scientific findings, results of observations and investigations into clusters, and theories of organization development strategies, it has been assumed that the construction of the cluster development strategy should include three stages, which correspond to the structure (parts) of the document. Those are: cluster characteristics, the determination of the cluster development potential and the cluster strategic identification. Each of those stages has to include tasks which will lead to the specification of the content, which, in turn, will produce a complete, coherent entity. Although clusters vary, the properties they share should define the strategy character and direct the process of strategy formulation.

The methodology of cluster development strategy formulation, described in the paper, was used to validate development strategies of selected clusters. It was shown that actual cluster development strategies varied in volume, the formulation

methodology and content, which indicates that different approaches could be used when dealing with the issue.

In the cluster development strategies analysed, six documents (60%) can be evaluated as complete, because they contain all the components and the corresponding content. In the remaining documents, methodology errors were found, both at the strategic analysis stage and the cluster strategic identification.

The errors identified at the stage of strategic analysis (cluster characteristics and the determination of the cluster development potential) include: the lack of the region's potential analysis, unidentified trends that mostly affect the development of the major cluster segment, too general determination of the cluster internal potential, and the absence of the SWOT analysis of the cluster.

At the strategic identification stage, the major methodology errors are related to the lack of information on the funding sources, the cluster structure and organization, and the monitoring system. Varied approach to the construction of the tree of objectives, which affected the strategy accuracy level and completeness, should also be noted.

The analysis of the selected development strategies also showed differences in the identification of profits that result from the collaboration within the cluster. In some cases, those were determined prior to the formulation of the objectives; in others, they were presented as the effects of the strategy implementation. It could be inquired when the benefits for individual members of the cluster, resulting from their cooperation, should be identified. At this stage the question is not answered, although it seems the awareness of the advantages does contribute to the operation of the cluster.

## References

- Afsarmanesh H., Carmarinha-Matos L.M., 2005, *A Framework for Management of Virtual Organizations Breeding Environments Collaborative Networks and Their Breeding Environments*, Springer, New York, pp. 35-48.
- Bartosik A., 2010, *Perspektywy rozwoju przedsiębiorczości akademickiej w regionie świętokrzyskim*, [in:] E. Grzegorzewska-Ramocka (ed.), *Dobre praktyki przedsiębiorczości akademickiej. Teoria i praktyka w regionalnym kontekście społeczno-kulturowym*, Wydawnictwo Wyższej Szkoły Ekonomii i Prawa w Kielcach, Kielce, pp. 8-12.
- Bembenek B., 2012, *Tożsamość organizacyjna klastra*, [in:] J. Buko, M. Frankowska, (eds.), *Klasy, wiedza, innowacyjność, rozwój*, Wydawnictwo Uniwersytetu Szczecińskiego, Szczecin, p. 18.
- Brante Partners, 2015, *Klasy w Polsce*, <http://brante.pl/brante-czlonkiem-slaskiego-cluster-nano> (access 13.03.2015).
- Downar W., Frankowska M., 2012, *Czy mój klastr to sieć wartości*, [in:] M. Frankowska (ed.), *Tworzenie wartości w klastrze*, Polska Agencja Rozwoju Przedsiębiorczości, Warszawa, p. 35, 48-49.
- European Commission, 2010, *European Commission Report, EUROPE 2020. A strategy for smart, sustainable and inclusive growth*, COM, 2020, p. 5., <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2010:2020:FIN:EL:PDF>, (access 16.02.2015).



- Frankowska M., 2012, *Modele współpracy przedsiębiorstw w obszarze logistyki*, [in:] J. Buko, M. Frankowska (eds.), *Klasy – wiedza, innowacyjność, rozwój*, Wydawnictwo Uniwersytetu Szczecińskiego, Szczecińskiego, p. 79.
- Gierszewska G., 2003, *Strategie przedsiębiorstwa w dobie globalizacji*, Oficyna Wydawnicza Wyższej Szkoły Handlu i Prawa im. R. Łazarskiego, Warszawa, p. 11.
- Gierszewska G., Romanowska M., 2014, *Analiza strategiczna przedsiębiorstwa*, Polskie Wydawnictwo Ekonomiczne, Warszawa, pp. 36-56.
- Gorynia M., Jankowska B., 2008, *Klasy a międzynarodowa konkurencyjność i internacjonalizacja przedsiębiorstwa*, Difin, Warszawa, <http://www.mariangorynia.pl/ksiazki/rola-klastrow.pdf> (access 17.02.2015), pp. 31-32.
- Hamel G., 2006, *Alianse strategiczne. Sztuka zdobywania korzyści poprzez współpracę*, Wydawnictwo Helion.
- Janasz K., Janasz W., 2008, *Zarządzanie strategiczne. Koncepcje, metody strategii*, Difin, Warszawa, p. 77.
- Kierunki rozwoju klastrów w Polsce*, 45p., Ministerstwo Gospodarki, 2009, [http://www.mg.gov.pl/files/upload/11784/Tekst1Koncepcja\\_klastra.pdf](http://www.mg.gov.pl/files/upload/11784/Tekst1Koncepcja_klastra.pdf) (access 16.02.2015), p. 4.
- Koszarek M., 2011, *Strategia klastra – czy jest niezbędna do rozwoju?* [in:] M. Koszarek (ed.), *Inicjatywy, klastrów, skuteczne działanie i strategiczny rozwój*, PARP, Warszawa, pp. 9-10.
- Koszarek M., Erlanson K., 2011, *Formułowanie planu rozwoju klastru*, [in:] M. Koszarek (ed.), *Inicjatywy klastrów: skuteczne działanie i strategiczny rozwój*, PARP, Warszawa, p. 62.
- Koźmiński A., Piotrowski W., 1999, *Zarządzanie. Teoria i praktyka*, PWN, Warszawa, p. 163.
- Mikołajczyk B., Karczewska A., Fila J., 2009, *Klasy na świecie. Studia przypadków*, Difin, Warszawa, pp. 13-18, 23-25.
- Milek D., 2013, *Specjalizacje regionalne a Strategia Europa 2020*, Journal of Management and Finance, No 1, part 2, Wydawnictwo Wydziału Zarządzania Uniwersytetu Gdańskiego, Gdańsk, pp. 189-190.
- Molenda-Grysa I., 2012, *Kształtowanie przedsiębiorczości na rynku żywności ekologicznej w województwie świętokrzyskim*, Zeszyty Naukowe. Ekonomiczne Problemy Usług. Przedsiębiorczość szansą rozwoju regionu, No 98, Wydawnictwo Uniwersytetu Szczecińskiego, Szczecin, pp. 535-537.
- Obłój K., 2001, *Strategie organizacji. W poszukiwaniu trwałej przewagi konkurencyjnej*, PWE, Warszawa, p. 235.
- Palmen L., Baron M., 2011, *Przewodnik dla animatorów inicjatyw klastrów*, Polska Agencja Rozwoju Przedsiębiorczości, Warszawa, p. 18.
- Porter M., 2001, *Porter o konkurencji*, PWE, Warszawa, p. 81.
- PriceWaterhouseCoopers, 2011, *Uncovering excellence in cluster management*, PWC study, Hague.
- Rozporządzenie w sprawie udzielania przez Polską Agencję Rozwoju Przedsiębiorczości pomocy finansowej niezwiązanej z programem operacyjnym, Ministerstwo Gospodarki, 2006, Dz.U. 226, poz. 1651.
- Steinle C., Schile H., 2002 *When do industries cluster? A proposal on how to assess an industry's propensity to concentrate at a single region or nation*, Research Policy, Vol. 31, p. 851.
- Strategia Rozwoju Bałtyckiego Klastra Ekoenergetycznego*, 2009, 51p., [http://www.imp.gda.pl/fileadmin/user\\_upload/bkee/dokumenty/strategia\\_bkee.pdf](http://www.imp.gda.pl/fileadmin/user_upload/bkee/dokumenty/strategia_bkee.pdf) (access 06.03.2015).
- Strategia Rozwoju Dolnośląskiego Klastra Turystyki*, 2013, 118pp., <http://www.turystykadolnoslask.pl/upload/upload/Strategia%20Dolno%20C5%9B1%20C4%20Turystyki.pdf> (access 03.06.2015).
- Strategia Rozwoju Klastra Spożywczego w województwie pomorskim*, 2008, C:/Users/Walczyk/Downloads/Strategia\_rozwoju\_klastr\_spo%20C5%BCywczego%20(1).pdf (access 07.03.2015).
- Strategia Rozwoju Klastra Turystycznego w Sopocie na lata 2012-2016*, 2011 C:/Users/Walczyk/Downloads/Strategia\_rozwoju\_20.12.2011%20(4).pdf (access 07.03.2015).
- Strategia Rozwoju Lubuskiego Klastra Metalowego*, 2013. <http://www.lubuskiklastr.pl/files/Strategia%20rozwoju%20LKM.pdf> (access 08.03.2015).

- Strategia Rozwoju Mazowieckiego Klastra Chemicznego*, 2014, [http://klaster.iplock.pl/userfiles/Dokumenty/Strategia\\_rozwoju\\_Mazowieckiego\\_Klaster\\_Chemicznego.pdf](http://klaster.iplock.pl/userfiles/Dokumenty/Strategia_rozwoju_Mazowieckiego_Klaster_Chemicznego.pdf) (access 2015-03-08).
- Strategia Rozwoju Pomorskiego Klastra ICT*, 2009, C:/Users/Walczyk/Downloads/STRATEGIA%20ROZWOJU%20KLASTER%20ICT%20FINAL%20(8).pdf (access 09.03.2015).
- Strategia Rozwoju Pomorskiego Klastra Żeglarskiego*, 2013, 40p., <http://reklamytrojmiasto.pl/pkz.pdf> (access 09.03.2015).
- Strategia Rozwoju Wielkopolskiego Klastra Meblarskiego*, 2007, [http://klastermeblarski.warp.org.pl/content/File/strategia\\_rozwoju\\_wkm.pdf](http://klastermeblarski.warp.org.pl/content/File/strategia_rozwoju_wkm.pdf) (access 10.03.2015).
- Strategia Rozwoju Zachodniopomorskiego Klastra Drzewno-Meblarskiego*, 2007, [http://www.rsi.org.pl/dane/download/2007\\_strategia\\_klaster\\_meblarskiego.pdf](http://www.rsi.org.pl/dane/download/2007_strategia_klaster_meblarskiego.pdf) (access 10.03.2015).
- Walczyk A., 2012, *Redukcja kosztów transakcyjnych przedsiębiorstw jako jedna z korzyści funkcjonowania w klastrach*, [in:] J. Buko, M. Frankowska (eds.), *Klustry, wiedza, innowacyjność, rozwój*, Uniwersytet Szczeciński, PARP, Szczecin-Warszawa, p. 338.
- Walczyk A., 2013, *Clusters and their impact on innovativeness of enterprises*, [in:] O. Kuźmin (ed.), *Менеджмент та підприємництво в Україні: етапи становлення і проблеми розвитку*, Львів: НУ, “Львівська Політехніка”, p. 325.
- Walczyk A., 2014, *Analiza strategiczna w procesie tworzenia klastrów*, [in:] A. Maciąg (ed.), *Współczesne uwarunkowania rozwoju społeczno-gospodarczego. Świat – Polska – Region świętokrzyski*, Wydawnictwo Politechniki Świętokrzyskiej, Kielce, pp. 200-201.
- Żuber R., 2008, *Zarządzanie rozwojem przedsiębiorstw. Teoria i praktyka*, Difin, Warszawa, pp. 96-97.