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CREATIVE CLUSTERS IN POLAND AND THEORETICAL CLUSTER STRUCTURES – SIMILARITIES AND DIFFERENCES¹

KLASTRY KREATYWNE W POLSCE A STRUKTURY KLASTROWE W UJĘCIU TEORETYCZNYM – PODOBIENSTWA I RÓŻNICE

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ABSTRACT: The goal of the paper is to examine the degree of congruence between cluster definition found in the literature on the subject and the actual creative clusters operating in Poland. The author set out to analyse the following features: cluster openness, whether goals of cooperation and common development strategy have been defined, spatial concentration of the entities and the significance of geographical proximity, as well as the relationship between cooperation and competition within clusters.

Openness of cluster structures was the only feature that has found clear confirmation in the conducted direct survey. In the majority of cases, clusters increased the number of entities (cluster members). At the same time, new entities were established in the cluster environment and with time have also become cluster members. As for the remaining three features, no clear confirmation could be obtained. For example, only 5 out of the 17 analysed creative clusters had common development strategies.

KEY WORDS: creative industries, clusters, cooperation, Poland

ABSTRAKT: Celem opracowania jest ukazanie stopnia zgodności między definicją klastra w literaturze przedmiotu a funkcjonującymi w Polsce klastrami opartymi na działalności twórczej. Autor postanowił zanalizować następujące cechy: otwartość klastrów, zdefiniowanie celów współpracy oraz wspólnych strategii rozwoju, koncentrację przestrzenną podmiotów oraz znaczenie bliskości geograficznej, a także relacje kooperacji i konkurencji w klastrze.

Jedyną cechą, która zdecydowanie znalazła potwierdzenie w przeprowadzonym badaniu bezpośrednim, była otwartość struktur klastrowych. Klastry w większości przypadków zwiększały liczbę podmiotów-członków. Tworzone były jednocześnie nowe podmioty w otoczeniu, które z czasem stawały się również członkami klastra. W przypadku pozostałych trzech cech trudno o ich jednoznaczne potwierdzenie. Przykładowo wspólne strategie rozwoju miało jedynie 5 z 17 analizowanych klastrów kreatywnych.

SŁOWA KLUCZOWE: działalności twórcze, klastry, kooperacja, Polska

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1. Background

Contemporary development processes in cities are focused on the development of internal potential based on creativity and innovation. The above leads to an increased interest in the creative sector, i.e. creative activities such as advertising, publishing, film, music, architecture, design and knowledge-intensive activities (KIAs) such as ICT, legal and consulting services (Department... 2013). While the market position of KIAs has already been well-established, the economic condition and prestige of creative activities may cause more concern. The reason is that the merger of creative activities, including in particular culture, with business still produces insufficient development stimuli. Especially when the problem is analysed from the economic point of view, because the social role of the sector is well noticed and undisputable.

In line with the new trends in the development of urban areas, various measures have been taken to increase the position of creative industries in the economy. They can take the form of central government support such as preferential VAT rates or national support programmes for (selected) creative sectors. However, more often they are local initiatives, such as exemption from a portion of rent charges for entities located in selected neighbourhoods and active in selected industries or setting up networks of creative cities. There is also cooperation between individual entities active in creative industries aimed at strengthening their market position. These entities establish networks, create strategic alliances, use outsourcing and form clusters.

The present paper is devoted to clusters dedicated to creative industries. There are currently about 20 clusters of the above type in Poland; while some are created, others are wound up. Nevertheless, they still constitute a significant part of the total number of clusters in the country, which is estimated at 130 (PARP 2018). It is worth noting that none of the above clusters was selected as the Key National Cluster. Thus, the question still remains whether Polish creative clusters will survive and if so, what will be their real impact like on the economy of cities and regions.

The aim of the present paper is to present the results of a survey of creative clusters to answer the question of whether creative clusters in Poland operate in accordance with the idea of clustering described in the literature on the subject. To answer the above question, the author examined the clusters' attitude to common development strategy, to their spatial concentration, as well as tried to determine how much open they are. Another important goal was to determine the relationships between cluster entities – whether they are based exclusively on cooperation or on competition? In view of the conceptual approach to clustering, the above question is important, or maybe even crucial.

The present paper consists of three basic parts. The first one is devoted to the concept of industrial clusters, including creative clusters, as dealt with in the specialist literature. The second part provides basic information about creative clusters in Poland. The third part presents selected conclusions following from the author's research.

2. Creative cluster concept in the literature on the subject

The concept of clusters emerged at the interface of various research trends originating from several fields of science: economic, management and social sciences. The problems of location in space were studied in classical theories and concepts of political economics (A. Smith, D. Ricardo), location theories by J. Thünen, A. Weber or A. Lösch, theories of Swedish scholars such as G. Myrdal or in contemporary work of location theorists (W. Isard and E.M. Hoover). However, the intellectual foundation of the cluster concept is Marshall's industrial district rooted in management sciences. The above term was used to define a geographical concentration of enterprises operating in a single or related industries, with the resulting effect of agglomeration based on the flow of knowledge between the enterprises, creation of specialized production and service factors and the emergence of a market of qualified labour force. The development concepts proposed later based on location advantage and system approach built upon and supplemented the above basic concepts. It is also worth noting that the concept of location can also be found in social sciences. It was accompanying the research on social capital (e.g. P. Bourdieu and R. Putnam).

M.E. Porter, his first works published in the 1990s, is regarded as the seminal figure of contemporary cluster research. For example, in his work of 1998, the researcher discussed four characteristic features of industrial clusters. Among them are: geographical concentration of entities, interactions between them, common development trajectories and cooperation. The above features can also be found, although with a different distribution of emphasis, in the works of other authors (among others Bathelt, Taylor 2002; de Berranger, Meldrum 2000; Gordon, McCann 2000; Gupta, Subramanian 2008; Rosenfeld 1997). In the literature on the subject, there is a dominant positive image of a cluster as a structure benefitting from the relationships of cooperation between its members. Clusters are presented as a specific form of spatial organization of industry and services, being the most mature form of production organization from the point of view of its ability for sustainable development. The most often mentioned cluster advantages are higher productivity being a result of diffusion of technological and organizational know-how and of proximity of entities, higher innovation, faster growth, keeping/increasing competitive advantage of the cluster or a growing number of jobs (e.g. Brodzicki et al. 2004; Gorynia, Jankowska 2008; Mariussen 2001; Skawińska, Zalewski 2009; Sternberg 2001). However, the creation and functioning of clusters may also be accompanied by threats. Among the weaknesses of cluster structures are: too narrow a specialization, threats resulting from simultaneous cooperation and competition, pressure for quick results, which may lead to a greater stress laid on more spectacular, but not necessarily sustainable effects. The literature on the subject also includes voices that do not fully accept the idea of clusters. For example, in the opinion of Martin and Sunley (2003) the cluster concept is too general and the definition lacks transparent terminology and cause and effect explanation of the mechanism of its functioning.

Also noteworthy is the lack of a widely accepted methodology of cluster research, which results in significant discrepancies in the literature of the subject concerning the number of members in the active clusters. Criticism also concerns the unclear manner of formulation of the concept of geographical proximity (mentioned, among others, by Martin, Sunley 2003, and Micek 2017) which in clustering is understood very broadly.

Creative clusters are formed in a variety of creative environments with the participation of cultural institutions, private sector entities active in creative industries as well as entities responsible for the commercialization of achievements, for educational activities, for research and development, and for the business environment. Venture capital institutions participating in the financing of innovative projects also play a role here. Larger cultural centres or universities can act as hubs, especially in Marshallian or state-anchored clusters (according to the classification by A. Markusen (1996)). At the same time, the composition of a cluster may change over time, e.g. due to the absorption of entities from the environment (e.g. Drake 2003; Gibson, Kong 2005).

International literature includes a host of studies on creative clusters. There is an especially large number of papers describing in detail a single creative cluster (e.g. the natural history film-making cluster in Bristol (Bassett et al. 2002)), video games cluster in Montreal (Darchen, Tremblay 2015) or a creative cluster in rural Cornwall (Harvey et al. 2012). However, what attracts attention in review articles is the varying scope covered by the research. Some of the works are devoted to one country (e.g. Chapain et al. 2010), the area of the European Union (e.g. ESPON 2011) or one city only (e.g. Heebels, Van Aalst 2010; Landry 2000; Pratt 2008). In geographical terms, it is worth noting that creative clusters are most often located in central districts of large cities and metropolitan areas, or in a larger area of inner-city districts. The reason for the above is that the leading cultural institutions, local government agencies and other resources (including infrastructure) are also located in such areas, all of which are factors contributing to the development of the creative sector.

3. Creative clusters in Poland

Statistics on the overall number of industrial clusters in Poland differ, which is due to the dynamics of the phenomenon. Initially, clusters were primarily bottom-up initiatives. Currently, a greater role is attributed to the authorities at the regional level. The inflow of EU subsidies was of great importance in this respect (e.g. under the Innovative Economy Operating Programme: Measure 5.1. Support for development of cooperative relations of supra-regional importance), which resulted in a sudden sprouting of artificial clusters, unlike natural clusters which emerge spontaneously, based on the existing resources. A sudden increase in the number of newly-established clusters in Poland was observed in 2007-2013. For example, in 2006 Bojar and Bis counted 44, Hołub-Iwan and Małachowska two years later (2008) – 56, and Polish Agency for Enterprise Development (PARP 2012) showed 212 clusters. However, after 2012, this

trend has changed and the number of clusters is gradually decreasing. When the EU funding stopped, some of them closed down their business activity as they failed to develop their own independent ways to build market presence. The report of PARP (2018) mentions 130 active clusters, of which over 60% are young clusters initiated after 2011. Such a short history is insufficient to achieve desired results. The largest number of clusters has been identified in the ICT sector, power engineering, construction and in the medical sector. A significant number of clusters can also be found in the metal industry, tourist sector and business services sector.

An important role in the functioning of each cluster is played by the facilitator – a person or an institution that facilitates cooperation in the cluster. At the initial stage of development of the cluster initiative, the facilitator's role is most often focused on soft activities related to motivating (potential) cluster members to start common activities. This role comes down to streamlining the process of information flow and to building trust in the structure as a whole as well as in its individual members. Over time, the role of the facilitator takes on a more business-like character and focuses on the utilization and strengthening of the cluster's competitive advantages.

Studies of creative clusters published on the Polish market can generally be divided into two groups: articles including analyses of the phenomenon on a micro scale (usually single case studies – e.g. Dyba 2016; Jankowska 2012; Polko, Wrana 2009; Stępień and others 2012) and publications (whose number is significantly larger) discussing creative clusters in general. The authors of this type of studies have analysed creative clusters from various angles. For example, in their study of 2013, D. Szymańska and S. Środa-Murawska conducted an analysis of spatial concentration of creative sector entities in Poland, using the location quotient (LQ). The authors identified areas offering favourable conditions for setting up clusters (Środa-Murawska, Szymańska 2013). In his papers, S. Olko deals with management in clusters and creative networks (e.g. Olko 2015). B. Jankowska focuses on the processes of internationalization of creative clusters (e.g. Jankowska, Götz 2017). In turn, the study by Bialic-Davendra et al. is an example of an article devoted to creative industry clusters in Poland against the background of Central and Eastern Europe (Bialic-Davendra et al. 2016). However, the conditions for the development of creative clusters and following the direction of their changes are a multi-faceted problem. Considering the growing (especially in large cities) number of entities in the field of creative activity, further interest in cluster structures could be expected. Clusters are most often created among entities of a similar industry that previously had mutual contacts with each other. And while undertaking cooperation within the cluster, they would like to increase the range of impact, establish cooperation with R&D or expand cooperation with the local/regional government. On the other hand, after talks with facilitators, it seems that clusters in Poland have adopted a wait-and-see attitude towards the European Commission's decisions regarding cluster policy. If the new budget for 2021-27 is not very favourable to clustering, the number of such structures will probably decrease significantly. In addition, clusters encounter numerous barriers (some of them are listed in Figure 1), which often stop the cluster's

development, such as lack of interest from local governments or dependence on external funding.²

4. Direct survey of creative clusters in Poland

4.1. Aim and research method

The aim of the study was to determine the extent to which the surveyed creative clusters correspond to the definition of a cluster. An attempt was made to define the clusters' approach to the joint development strategy and to geographical concentration and, at the same time, to establish the degree of openness of the structures. Determining the relationships between entities in the cluster was also important.

The research results presented in this study come from direct surveys carried out among facilitators of creative industry clusters operating in Poland. The survey was conducted in the autumn of 2018. After an initial telephone call announcing the conducted research, the facilitators filled out a special survey form containing 20 open- and close-ended questions. The questions concerned, among others, motives for establishing cluster structures, barriers to their functioning, internal and external connections, introduced innovative solutions or range of impact. Responses were collected from the coordinators of 17 clusters, for which creative industries were the only or one of several types of business activity. The analysed clusters were established in 2006-2015, with the biggest number created in 2011-2013. With the current number of entities working in the subject clusters ranging from 4 to 95 and in most cases this number has been steadily increasing since it was founded. Design and culture were the objects most frequently indicated by the respondents. The remaining clusters of the above type that are mentioned in various reports and statistics no longer exist. Only in the case of the Creative Industries Cluster from Szczecin, no clear answer has been obtained regarding whether the cluster still exists. The cluster's facilitator evaded giving a direct answer. Assuming that the cluster exists, the result would be 18 clusters based on creative industries, of which the 17 listed below (Table 1) took part in the survey.

4.2. Creative clusters in Poland and theoretical cluster structures – a comparative approach

The author focused on these conclusions and thoughts following from the study, which allow answering the important question: Bearing in mind the classical concept of an industrial cluster, are the observed relationships of the network or cluster character? It follows from the literature review, whose sample items are mentioned above, that networks and clusters are characterized by both similarities and differences. Voluntary

² The author developed the conditions for cluster development, including stimulating factors and factors limiting their functioning in another article (Namysłak 2019).

Table 1

Clusters including entities active in creative industries participating in the survey

Cluster name*	Location of the cluster's headquarters	Type(s) of activity	Date of establishment	Number of entities	Direction to change the number of entities**
Digital Entertainment Cluster (formerly European Game Centre)	Kraków	video games	2013	30	increases
"HubClub" Śląski Kłaster ICT i Multimediów (HubClub Silesian ICT and Multimedia Cluster)	Ruda Śląska	ICT, multimedia	2013	20	still changing
Kłaster Bibliotek Białskich (Biała Podlaska Library Cluster)	Biała Podlaska	cultural activity	2010	4	constant
Kłaster Biznesu Kultury BIZ-ART (BIZ-ART Culture Business Cluster)	Elbląg	design, publishing, performing arts, advertising	2011	5	steady at first, then decreasing
Kłaster Biznesów Kreatywnych (Creative Businesses Cluster)	Zabrze	design, fashion photography, music, advertising	2012	48	increases
Kłaster Innowacyjnego Przemysłu i Mody (Innovative Industry and Fashion Cluster)	Łódź	fashion design, media, advertising	2012	20	constant
Kłaster Kultury i Turystyki Przemysłowej (Culture and Industrial Tourism Cluster)	Zabrze	culture, heritage, tourism	2012	40	increases
Kłaster Poligraficzno-Reklamowy (Printing and Advertising Cluster)	Leszno	printing, advertising	2006	31	increases
Kłaster Przemysłów Kreatywnych "MadeinŚląsk" (MadeinŚląsk Creative Industries Cluster)	Gilwice	design, architecture, advertising, multimedia	2013	40	increases
Kłaster Przemysłów Kreatywnych (Creative Industries Cluster)	Bydgoszcz	music, media, publishing, film, computer games	2011	23	increases
Lokomotywa kultury (Engine of Culture)	Bielsko-Biała	design, multimedia, advertising, film	2011	53	first it grew, then it was constant
Lubuski Kłaster Przedsiębiorczości i Turystyki (Lubuskie Province Cluster of Entrepreneurship and Tourism)	Zielona Góra	tourism, recreation, culture	2015	20	constant
Małopolski Kłaster Turystyczny Beskid ("Beskid" Tourism Cluster of Małopolskie Province)	Nawojowa	tourism, multimedia	2011	14	increases

Table 1 contd.

Cluster name*	Location of the cluster's headquarters	Type(s) of activity	Date of establishment	Number of entities	Direction to change the number of entities**
Mazurski Klaster Turystyczny (Mazurian Tourist Cluster)	Mragowo	tourism, culture renewable energy	2012	95	constant
MediaKlaster	Łódź	film activity	2007	15	constant
Śląska Strefa Dizajnu (Silesian Design Zone)	Cieszyn	design, advertising	2011	40	first it grew, then it started to fall
Śląski Klaster Kultury i Turystyki (Silesian Cluster of Culture and Tourism)	Pszczyna	culture, tourism	2013	53	increases

* Clusters in which creative activities are the only or dominant form of activity are highlighted

** Since its inception.

Source: own study.

involvement is a common feature in both network and cluster structures. Another similarity is the independence of entities in economic and legal terms and investments in creating relationships between entities, with these relationships – as the facilitators have claimed – being the subject of special meetings and debates financed from the cluster's common funds. The purpose of cluster promotion was served by various forms of participation in national and international fairs. A joint online webpage was also set up to create and strengthen information channels. The literature on the subject also mentions the transfer of resources between entities in networks and clusters. Human capital is among the principal resources of business entities. The present research proved that the flow of employees did take place, especially in the later period of functioning of some clusters. It was not planned and not all facilitators were happy about the fluid boundaries between the entities. Resources can also be understood as products or raw materials. However, in this respect, the existing connections were weak. The facilitators' answers showed a clear prevalence of intangibles in the flows within the clusters over the flows of products/semi-products or raw materials. Generally, the weakness of the above flows is a sign of the pursuit of maximum independence in terms of connections while leveraging other advantages that can be offered by a cluster structure. However, a joint dependence of entities on the resources controlled by other entities was observed (which is consistent with the literature on the subject), especially in the case of hub-and-spoke (1) and state-anchored (2) clusters.

According to the specialist literature, the above-mentioned features should be common for networks and clusters. Apart from them, there are also features that make both structures different. Among such features is openness of membership in the structure. Networks are by definition closed structures, while clusters are open ones. An analysis of changes in the number of entities constituting the subject clusters since their inception has shown that in most cases the above criterion was met. In 10 out of the 17 clusters the number of member entities was systematically growing until the current number (14-95 entities). In six clusters, the number was constant from the beginning and in one case it decreased. At the same time, in three clusters new entities were established that joined the cluster. However, this phenomenon was noticed only in the case of clusters which in addition to creative industries also specialize in other areas, such as the IT sector, printing and tourism. And the above were the areas in which the newly-created entities were active; hence, they did not represent creative industries.

Another feature making clusters different from networks is the definition of the objective of cooperation, which for networks is strictly business, while in a cluster it is a broader concept encompassing an entire strategy of functioning on the market. The survey showed that only five of the analysed creative clusters had agreed on common development strategies. Some respondents also said that for a long time their clusters had not even had any stated target or scope of cooperation defined. It was the lack of a common development strategy that made two facilitators hesitant about taking part in the study. They were aware of the need to implement common strategies in accordance with the cluster's idea, but – as they claimed – there was no agreement within

the cluster on joint strategic decisions (Figure 1). In some cases, the discussions on joint development strategies exacerbated the conflict of interest between companies.

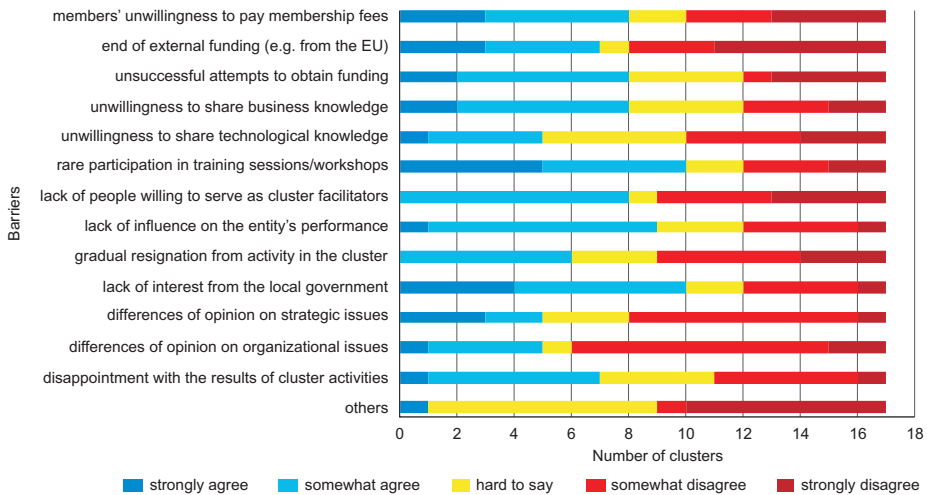


Fig. 1. Barriers to the functioning of creative clusters in Poland

Source: own study.

Another important differentiating feature is the approach to geographical distance between entities within the structure. Networks are characterized by a lack of territorial restrictions. Geographic proximity does not matter. Clusters, on the other hand, are characterized by spatial concentration of entities and thus by greater importance of geographic proximity. The author initially assumed that the geographical distance between entities is significant for the intensity of the flow of knowledge and technologies in the cluster. In accordance with the idea of clustering, it seemed that such a dependence would be observed. It turned out, however, that no such relationship exists. Knowledge flows were indicated by 15 out of the 17 clusters, including both clusters located within one municipality and those separated by distances exceeding 100 km. Only two facilitators responded that there were no knowledge flows in their clusters. Interestingly, these were clusters whose members were located very close to one another, even in the same city. The flow of technology occurred only in two clusters concentrated in one city or in several neighbouring cities. The above leads to the conclusion that knowledge flows in the analysed clusters occurred regardless of the distance between entities, while the flows of technology occurred so rarely that it is difficult to talk about any dependencies. Confirmation of the above conclusions can be found in other responses given by the facilitators. They were asked whether the intensity of cooperation (in general) between entities in the cluster was dependent on the geographical distance between them. And also in this case, the answers were ambiguous. Eight of the seventeen respondents said that a small distance between entities

is important for the intensity of links between them (strongly agree – 6 indications, somewhat agree – 4 indications). The facilitators of 5 clusters said that there was not any such relationship (strongly disagree – 1, somewhat disagree – 4). The remaining facilitators were not able to reply to this question. Nevertheless, the answers obtained do not allow concluding that the intensity of connections is a function of geographical distance between entities.

Another issue is the approach to cooperation between entities. In networks, working relationships are based on cooperation, while in clusters – on cooperation and competition. As it turns out, *coopetition* (simultaneous cooperation while maintaining elements of competition between entities) is quite a rare phenomenon. Statements about this issue were generally pessimistic. In one of them the respondent said that the Polish economy is not yet ripe for *coopetition*, that companies prefer to act on their own because they do not trust one another, that some companies attract employees of other companies from the cluster and in such a situation it is difficult to form a real partnership. When asked about the relationship between cooperation and competition in the cluster, three clusters pointed to a balance, four to the dominance of cooperation, two to the dominance of competition, and as many as eight facilitators were not able to answer this question. The lack of facilitators' answers to this question was mainly the result of the existence of various relationships in the cluster which are difficult to be averaged and summarized in a single sentence. Clusters are based on social values that are associated with trust in the sphere of public activity. While synergy effects in the cluster can bring multifaceted benefits to all cluster members (in accordance with the win-win principle), networks are focused exclusively on increasing profits and sales.

5. Final conclusions

The present study aimed to present these features illustrating the functioning of creative clusters in Poland, which can help determine whether all clustering criteria – in accordance with the literature on the subject – have been met. The author decided to look at the following issues: openness of the cluster, definition of the aim of cooperation and of a common development strategy, spatial concentration of entities and the importance of geographic proximity, as well as at the relationship between cooperation and competition in the clusters. The only feature that definitely found confirmation in the study was openness of clusters which in most cases increased the number of members. At the same time, new entities were established in the cluster environment which with time were also becoming cluster members. However, in the case of the remaining three features, their presence cannot be unequivocally confirmed (Table 2). Joint development strategies were pursued by only 5 out of the 17 analysed creative clusters. Only eight facilitators stated that proximity between entities contributed to the intensity of relationships between them, and the intensity of knowledge or technology flows in the cluster was not dependent on the distance between the entities.

The task that turned out to be the most difficult was finding an answer to the question of relationship between cooperation and competition in a cluster – three clusters indicated a balance between cooperation and competition, four declared there was more cooperation, and two said there was more competition. As many as eight facilitators were unable to answer this question. At the same time, the comments of some of the facilitators included critical remarks about the idea of clustering. For example, some of them said that the Polish economy was not yet ready for cooperation and that companies preferred to act on their own. Where there is a significant difference in the approach to business activity and no intention to run a joint activity, there can hardly be any cooperation to speak of.

Table 2

Congruence of features of the analysed creative clusters with cluster features described in the literature on the subject

Cluster feature in accordance with specialist literature	Congruence with the analysed creative clusters		
	yes	no	hard to say
Open membership	×		
Definition of common development strategy		×	
Geographical concentration of entities; significance of geographical proximity			×
Working relationship in the cluster based on cooperation			×

Source: own study.

The presented results are another contribution to the research on clusters in Poland, including in particular creative clusters, although the study has not explicitly confirmed the compatibility between cluster image in the literature and the real situation of creative clusters. However, in the opinion of the author, it is the above lack of compatibility that is worth studying in depth. Maybe it is typical of more clusters in Poland? In the future, the author plans to conduct a more detailed analysis of the links within creative clusters and to define an optimum cluster model for the entire creative sector from the point of view of its further development.

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