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D.1 The Knowledge-Based Opole Tourism Cluster (OKTW) as a Network Tool for Organizing the Space and Flow in the Opole Region

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Introduction

A network structure is becoming an omnipresent determinant in the organization of social and economic life. In a sense, a network outlines, encompasses, structures, and arranges the space of data, information, services, goods, things and people, and how they flow. However, a network is not able (neither is its aim) to organize a given space in the traditional, vertical arrangement. It is not an equivalent of flat structures, either; it is rather an energy and information entity applied in a given space (the territory, the area, the logistics of an enterprise) which, by playing on continuities and non-continuities, accelerates the exchange and commercialization of ideas (innovations, research, cooperation, joint services, projects and ventures).

In the era of the multiplication of various network entities, it is more and more difficult to identify them, e.g. according to the criteria of key values. In addition, we more and more often deal with the phenomenon of pullulating overlapping pervasion, a takeover and interference of networks which for an average citizen gives a very blurred picture of reality (e.g. Tesco, IKEA, OBI, Kaufland; and their own-brand products which do not have the name of an individual manufacturer).

This paper has the model character and presents a model of a Knowledge-based Opole Tourism Cluster (OKTW) as a network proposal for arranging the “knowledge-based” space of the Opole region in Poland. So far it hasn’t been possible to do empirical researches because OKTW is still in the process of creation.

¹ The article uses the assumptions and models included in the paper titled: „Sieciowe przesłanki i determinanty tworzenia klastra turystycznego opartego na wiedzy w województwie opolskim” Uniwersytet Przyrodniczo-Humanistyczny w Siedlcach, Siedlce 2012 (in press).
1 Benchmarking analyzes

Contemporary economies and societies have certain characteristics of the network structure, which makes it difficult to design any business model without an analysis of the network involvements of internal and external entities. Very often such an analysis has only a quantitative dimension which is in the most primitive representation, and lists the initiator (the integrator, the leading firm, etc.) of the network and its participants (Fig. 2).

![Diagram of a simple model of the network]

**Fig.2 - A simple model of the network**

The legend:
- IS – the initiator of the network
- P1, 2, n – the entities of the network

Source: the authors’ own study.

However, such an approach has a number of drawbacks:
- we do not know the key competencies of IS and P, and
- we do not know the nature of the connections between IS and P.

In reality, a network, once created, even one of a “latent” nature undergoes the processes of drifting (Fig. 3) which basically means:
- intercepting key competencies from the integrator’s company (IS) and from the other Ps, and
- implicit or explicit attempts to create its own sub-networks (networks) by P,
- P’s separation from the primary network (gradual or immediate separation by achieving its own, original key competencies).
Creating networks of a qualitative nature, based first of all on the free flow of knowledge, may be a panacea to the signaled threats. Here, the orchestra model of the network is very useful when the following rules are followed:

- voluntariness of entering and exiting the network,
- the position of a P in the network does not depend only on an excess of key competencies but also on P’s proneness to share them,
- harmonization of strategic projects and business operations,
- competition superseded by coopetition, namely a holistic sharing of key competencies.
2 A network tourism cluster

A serious drawback of clusters created so far in the space of science, research, tourism, education, and others is their geographical orientation; namely focusing on a certain territorial area of business and extra-business entities “dealing with” (directly or indirectly) a certain type of operation (e.g. innovations, aviation, biotechnologies, IT, medicine, perfume industry, clothing industry, etc.)

In the IT era this kind of an “area” paradigm of creating clusters of de facto knowledge, based on the famous “Silicon Valley”, must be thrown on the scrap heap.

Instead, the authors of this study suggest creating clusters in the meaning of - “networks of the dynamic flow of knowledge” - where the transfer of knowledge, especially implicit knowledge, is more important than gathering knowledge and concentrating it on a specific territorial area.

Thus, the hitherto prevailing, traditionally-created tourism clusters, most frequently understood as “tourism hubs”, concentrating year-round accommodation facilities (hotels, guesthouses, hostels, agritourism farms; accompanied with a developed resort infrastructure) should be reoriented towards knowledge-based network tourism clusters (Fig.4) since tourism in such clusters becomes a tool for the implementation of the projects for actively gaining ‘hot’ knowledge in the following segments:
- business (conferences, business tourism and travel),
- religion (pilgrimage tourism),
- medicine (health tourism),
- education (study and travel), and others.

In the process of building knowledge-based economies and societies, tourism may play a major role in the process of channeling knowledge, particularly for non-professionals, which is a result of the following premises for the development and functioning of post-modern society:
- boredom of people with formal etiquettes of behaviour,
- working, learning, doing business should be an adventure,
- the fast movement of people and objects,
- “pointing the reality” (the rapid “doing” of various projects, trips, adventures, relationships, etc.),
- short-term perspectives (of development, work, involvement, etc.)
Fig. 4 - Knowledge-based network tourism cluster

The legend:
- SKTW – knowledge-based network tourism cluster
- B – benchmarking
- S – network structure
- W – knowledge
- KTP – tourism clusters in Poland
- KTZ – tourism clusters abroad
- KBN – business, scientific and other clusters

Source: the authors’ own study

Cluster based on knowledge should be constructed according to the following quality dimension:
- Identification of key competencies based on knowledge,
- Domination position of the transfer of implicit knowledge than the transfer of explicit knowledge,
- Increase the frequency of the vibration of the networks oriented on the transfer of implicit knowledge,
- Quick changes between the roles of actors, agents, managers and knowledge-based workers in cluster arrangement,
- begin using the instrument such as ‘subsidence’ of the touristic cluster to the social, economic, politic and technological networks.

Table 1- Focusing on the effects of post-modern society in a knowledge-based cluster

<table>
<thead>
<tr>
<th>SP</th>
<th>KTW</th>
</tr>
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<tbody>
<tr>
<td>↓</td>
<td>↓</td>
</tr>
<tr>
<td>P</td>
<td>Pr</td>
</tr>
<tr>
<td>Never-ending bacchanalia</td>
<td>Tourism</td>
</tr>
<tr>
<td>business is fun,</td>
<td>business,</td>
</tr>
<tr>
<td>life is a constant celebration,</td>
<td>conference,</td>
</tr>
<tr>
<td>shopping sprees,</td>
<td>pilgrimage,</td>
</tr>
<tr>
<td>adrenaline rush(e.g. extreme sports),</td>
<td>dedicated (specialist, e.g. a congress of</td>
</tr>
<tr>
<td>being lost,</td>
<td>psychiatrists),</td>
</tr>
<tr>
<td>the lack of persistence,</td>
<td>training,</td>
</tr>
<tr>
<td>excessive debt,</td>
<td>therapeutic,</td>
</tr>
<tr>
<td>taking shortcuts in life,</td>
<td>shopping (e.g. the Chinese in London –the</td>
</tr>
<tr>
<td>supermarket as a family home,</td>
<td>carnival period).</td>
</tr>
<tr>
<td>no space of reference.</td>
<td></td>
</tr>
</tbody>
</table>

The legend:

- SP – post-modern society
- KTW – knowledge-based tourism cluster
- P – assumptions
- Pr – products

Source: the authors’ own study

3 The methodological assumptions of the structure of a knowledge-based tourism cluster

In the process of creating a knowledge-based cluster, the following must be defined:
- the type of basic knowledge,
- the channels for knowledge flow,
- the criteria for the selection of partners based on key knowledge possessed by them,
- the principles and tools for equaling the potentials of knowledge,
- the ways of guiding, monitoring and navigating customers (tourists) in the network,
- the number of key nodes of the knowledge-based network (e.g. touristic, recreational, sports, business network),
- the processes for creating the chains of value for customers,
- the ways of building a knowledge-based community in a knowledge-based tourism cluster,
- the possibilities of cooperation with friendly networks,
- the ways of neutralizing hostile actions (e.g. appropriating the knowledge of the network)

OKTW should mark out the following dynamic parameters:
- generating 'the flows’ of touristic knowledge both to potential and real clients,
- building the convergences between the cluster and other social, economic, politic and technological networks,
- creating 'the centers based on interdisciplinary knowledge’ in internetwork arrangement,
- orienting for solving the clients problems in the new forms of therapeutic, pilgrimage, business, education tourism.

4 The premises and determinants for creating tourism clusters in Poland

In Poland we cannot yet talk about “fully mature” tourism clusters. Generally, they are still in the initiation stage and have a project nature. In this stage of cluster formation, entrepreneurs do not gain too many economic benefits yet. The benefits occur only after some time; only on a micro-scale in the beginning, and in further perspectives on the mezzo- and macro-levels\(^2\). The operation of Polish tourism clusters being in the phase of development, concern most of all
- breaking the mental barriers of entrepreneurs,
- changing their mentality in the long-term perspective,
- the transfer of knowledge, especially the implicit one,
- stimulating an innovative way of thinking,
- improving cooperation, mainly via informal communication.

Representatives of the Polish SME sector often approach clustering cautiously. The owners of such enterprises are more often afraid of threats from their partners rather than expecting any benefits resulting from a cooperation with them. Such concerns are heightened by barriers occurring during the formation of a tourism cluster, out of which the most important seem to be:

- distrust among entrepreneurs; also related to the lack of habit in the interest of cooperation,
- the lack of cooperation of enterprises with R&D institutions,
- the anxiety of entrepreneurs concerning the division of profits within the cluster,
- the lack of knowledge concerning clustering,
- top-down appointment of clusters.

5 A benchmarking model of creating the knowledge-based Opole tourism cluster (Opolski Kluster Turystyczny Oparty na Wiedzy - OKTW)

The transfer of knowledge, both the implicit and the explicit one, is a base for the creation of the OKTW model (Fig.5). Knowledge is passed on by the leaders of KLACR, a Czech tourism cluster, through which joint meetings within the framework of the project are co-financed by EU resources. The project cooperation resulted in the appointment of a network initiator, namely the Opole Regional Tourist Organization (Opolska Regionalna Organizacja Turystyczna - OROT) whose main goal is to encourage potentially interested parties to participate in trainings and workshops. Such a situation means that the entities of the future cluster in the Opole region will obtain solid substantive support to undertake conscious cooperation. Therefore, in the subsequent stages of OKTW development we can expect a certain level of “entrepreneurial maturity” from its participants. It has been included in the model as a co-sharing of implicit and explicit knowledge among the entities of the cluster. In reality, it manifests itself in the cooperation and sharing of competencies, as well as the limitation of distrust to new solutions. In the further perspective, a close cooperation with KLACR within the scope of joint implementation of projects and the benchmarking of new touristic products is planned.
Fig. 5. The model of creating the Knowledge-Based Opole Tourism Cluster

The legend:
OKTW - the knowledge-based Opole cluster; KLACR - The tourism cluster of the Moravian-Silesian Region
OROT - Opolska Regionalna Organizacja Turystyczna - the Opole Regional Tourist Organization; TWN - the transfer of implicit knowledge; TWJ - the transfer of explicit knowledge; IS - the initiator of the network; P1, 2, n - the entities of the network; WP - project cooperation; BP - the benchmarking of projects

Source: the authors’ own study
6 ERAI as a macro-network benchmark in the process of the OKTW development.

The participation of potential representatives from OKTW entities in conferences related to the functioning and effectiveness of clusters resulted in initiating a cooperation with the Enterprise Rhone-Alps International (ERAI). The OKTW is a cluster in the embryonic stage, where cooperation is de facto not fully defined. In spite of this, future entrepreneurs included in the OKTW displayed active participation and, at the same time, mature entrepreneurship. Owing to this cooperation, the OKTW is able to determine benchmarks within the scope of:

- internationalization of OKTW (how to enter foreign markets)
- inter-clustering of OKTW (operations aimed at the establishment of cooperation with other clusters in the world),
- investing (via encouraging new foreign investors),
- identification of the best financial solutions (using public procurement and the European programmes for the businesses).

Striving for the spread of the activities of tourism enterprises on international markets, the future managers of OKTW may support themselves with ERAI guidelines (Table 3). The ERAI mission concerning the internationalization of clusters consists mainly of supporting international strategies of individual clusters by suggesting solutions related to the main strategic goals and ensuring the appropriate opportunities for them. These operations include, in particular: initiating the international strategies of clusters, enabling the emergence of goals corresponding to the sector, and coordinating the international working groups.

Table 3 Benchmarking research approach in creating the OKTW mission

<table>
<thead>
<tr>
<th>Goals</th>
<th>ERAI</th>
<th>OKTW</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Support</td>
<td>Supporting the international strategy of Rhone-Alps region clusters and clusters of competitiveness, consulting, and suggesting new ways for development</td>
<td>Supporting the international strategy of cluster entrepreneurs, consulting, and suggesting new ways for development</td>
</tr>
<tr>
<td>2. Development</td>
<td>Creating joint and individual operations in target markets</td>
<td>Creating joint and individual operations in target markets</td>
</tr>
<tr>
<td>3. Integration</td>
<td>Encouraging small and medium-sized enterprises to join regional clusters and the clusters of competitiveness</td>
<td>Encouraging entrepreneurs operating in the tourism industry from all over Poland to join</td>
</tr>
</tbody>
</table>
4. Promotion  Promoting the skills and know-how of the Rhone-Alps sectors of perfection, on an international level  Promoting tourism enterprises on an international level

5. Inter-clustering  Fostering and coordinating partnerships with foreign clusters  Fostering and coordinating partnerships with foreign clusters

Source: the authors' own study

Sharing the experience and knowledge on clustering policies, and the coordination of the inter-cluster cooperation (between clusters and their shareholders, e.g. enterprises, R&D organizations, etc.) are the goals for the ERAI’s creation of the so-called working groups within the framework of international network creation. Through the joint identification of priority areas important for the future (e.g. ecological mobility), a dialogue between European platforms connected with the so-called inter-clustering is developing. It is important for the OKTW managers to choose their own “working group” to coordinate the cooperation with other clusters of the tourism sector. Such a solution may bear fruit in the form of broadening valuable contacts in the international market and perhaps accelerate the pace which will drive the development of the OKTW.

Conclusion
One of the most important premises for the process of initiating and creating cluster structures in the tourism economy is changing the needs of post-modern society. For this reason, the authors of this paper suggest the implementation of knowledge-based clusters to the interested economic and social entities. In the future, the ability of entities included in a cluster to use the available resources, especially those related to intangible assets, namely knowledge or information, will be a decisive factor in achieving the competitive advantage in the tourism market. The benchmarking model of the OKTW creation gives opportunities to use these kinds of resources, among others, in the form of explicit and implicit knowledge; and it shows potential sources of acquiring them within the framework of tourism clusters. In the further stages of OKTW maturity, entrepreneurs are able to develop their own tools; creating the international development of the cluster; taking advantage of the inspiration for the benchmarking research approach concerning the mission for internationalization of the ERAI mega-cluster. Thus, the proper usage of knowledge (especially ‘hot’

knowledge) by entities included in OKTW, may contribute to the required effectiveness and innovativeness of a tourism cluster, and at the same time to enable it to achieve a level of competitiveness that will strengthen its developmental potential. In order to verify it, however, it is necessary to conduct further research on the problem of OKTW functioning in the area of the Polish-Czech border.

Abstract
The changing needs of post-modern society are one of the major premises for the process of initiation and formation of cluster structures in the tourism sector. Thus, the authors of this study suggest, to entrepreneurs, the implementation of knowledge-based clusters. In the future, a competitive advantage in the tourist market will be associated with intangible assets, such as knowledge or information. The benchmarking model for creating the OKTW shows the possibility of the usage of inter alia explicit and implicit knowledge, as well as how to identify potential sources for their acquisition in tourism clustering. This knowledge is also essential when creating innovative tourist products, both in terms of partial and whole (the partial is related to the tourist product known as a packet, offered by tourism enterprises e.g. a travel agency; the whole term is related to a tourist product for the tourist reception area, where the cluster is located). Proper use of knowledge by entities of OKTW can help to strengthen its development potential and thereby enhance its competitiveness. However, to determinate this, it is necessary to do further research on the functioning of OKTW at the Polish-Czech border.

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