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Using the Tourism Area Life Cycle for planning and managing of geotourist project

Abstract

Projects concerning development of geological and mining heritage objects for geotourism and postindustrial tourism should be treated as the typical investment projects. On the other hand such undertakings are also tourist projects, which are based on creation of tourist product as well as its promotion and development aim to attract visitors. The paper deals with opportunities of using the Tourism Area Life Cycle drawn up by R.W. Butler for planning and management of geotourist project in the long-term perspective.

Key words: geotourist project, postindustrial tourism, Tourism Area Life Cycle TALC, Butler's Model

Wykorzystanie cyklu ewolucji obszaru turystycznego TALC w planowaniu i zarządzaniu projektem geoturystycznym

Streszczenie

Projekty związane z zagospodarowaniem obiektów dziedzictwa geologicznego i górnictwa na cele geoturystyki i turystyki przemysłowej należy traktować jako standardowe projekty inwestycyjne. Jednocześnie przedsięwzięcia o tym charakterze są również projektami turystycznymi, związanymi z kreowaniem produktu turystycznego i jego promocją oraz rozwojem celem przyciągnięcia dużej liczby odwiedzających. W artykule przedstawiono możliwości wykorzystania cyklu ewolucji obszaru turystycznego (Tourism Area Life Cycle TALC), opracowanego przez R.W. Butlera, do planowania i zarządzania przedsięwzięciem geoturystycznym w dłuższej perspektywie czasu.

Słowa kluczowe: projekt geoturystyczny, turystyka poprzemysłowa, cykl ewolucji obszaru turystycznego TALC, model Butlera

Introduction

As a result of dissemination the knowledge about historical and cognitive values of geological and mining heritage objects and larger access to European Union' funds a lot of new geotourist projects in Poland have been realized during recent years. The peculiar kind of these undertakings is making use of the remains of former mining activity as major attractions within postindustrial tourism trend. These projects might be among other things: mining and industry museums, former mines and smelters adapted for visitors movement, surface routes, underground tracks with multimedia shows, recreation parks, heritage parks as well as post-mining sites

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with some kind of tourist infrastructure. Proper preservation and preparation of geological and post-mining remnants in aspect of making them available for tourists is only the first phase in process of building the value of the new tourist attraction.

1. Specificity of geotourist project

The basic importance for visitor has got a tourist virtue. In case of geotourist project this is a unique or specific feature of natural environment or form of human activity which is the subject of tourist interest. The value of the virtue depends on its location, uniqueness, originality, usefulness and perception of its features by the visitor. Planning of geotourist project should focus on emphasizing and distinguishing of these tourist virtues, which are the most important in educational and heritage point of view. In case of postindustrial tourism the main value is displaying of postindustrial landscapes in the meaning of being assets as well as manifestation of human achievements in technology and culture. Very important educational element is highlighting the post-mining scenery complexes which are in many cases accredited as historical relics and helping tourists earth science studies as well as geology and geomorphology understanding.

There are also another kinds of projects which serve the purposes of post-mining remnants' protection but are not typically tourist-oriented. The example of these projects is the 'Wilson Shaft' Gallery (Galeria Szyb Wilson) in Katowice, which was designed mainly for cultural purposes (Fig. 1).



Fig. 1. 'Wilson Shaft' Gallery in Katowice (photo: <http://www.szybwilson.org>)

In the past the 'Wilson Shaft' Gallery was part of 'Wieczorek' Mine, which history started in 1826. Nowadays this monumental object is used mainly as the exhibition space for the gallery with area of nearly 2 500 m², attracts artists and art creators. Different kind of investments in post-mining areas are complex revitalization projects, for example the concept of revitalization of the State Coal Mine 'Jawiszowice' in Brzeszcze with the participation of creative industries. The development of this mine plan is based on a cluster of four basic functions, which, through synergy and being interwoven, are a special added bonus: culture, education, business and tourism [5].

Nevertheless all initiatives and projects connected with development of geological and mining heritage objects or sites for tourism are quintessential investments in context of their plans preparation and execution. They require the initiator, executive team and coordinator, well-prepared budget, specific permissions and local authority engagement. But on the other hand, as practice shows, they involve commitment and cooperation among different specialists. Protection and exposure of post-mining relicts very often requires cooperation of experts from various branches like geology, mining, architecture, environmental protection, archaeology, reclamation, building law, mining law and sometimes many others. Part of tasks or requirements for them can be known at the beginning of the project but part of them sometimes is unpredictable. That's way the first assignment for investor or beneficiary should be very good schedule of the project with cost-effectiveness calculation as well as its continuous updating.

In the framework of geotourist project realization within investment project structure the main questions are: what will be the reception of the project results by visitors and how carry this project out to obtain a new tourists destination. For all these plans preparation and execution the concept of Tourist Area Life Cycle may be very useful.

2. The concept of Tourism Area Life Cycle

Like most products and destinations the geotourist product has a lifecycle. In his 1980 article, Richard W. Butler proposed a widely-accepted model of the lifecycle of tourist area. The concept of the Tourism Area Life Cycle (TALC) Model ties to the familiar economics theory of the product life cycle and the development of animals populations [1]. TALC is the model which describes the changes occurring the evolution of a tourist area as well as tourist product.

Butler in cooperation with other researchers elaborated the mathematical model describing the development of tourist destination. Every kind of that development could be transformed to the logical equation:

$$\frac{Dv}{Dt} = kV(M - V) \quad (1)$$

where:

V - number of visitors

T - time

M - maximum number of visitors

k - empirically estimated parameter representing the spread of knowledge about the tourist area

According to Butler's Model the changes occurring the evolution of a tourist area are described by six phases which are characterized through various dynamics and development direction. The variable is the number of visitors coming to the tourist area in one year period. These various phases are:

- *Exploration,*
- *Involvement,*
- *Development,*
- *Consolidation,*

- Stagnation,
- Rejuvenation or Decline (Fig. 2).

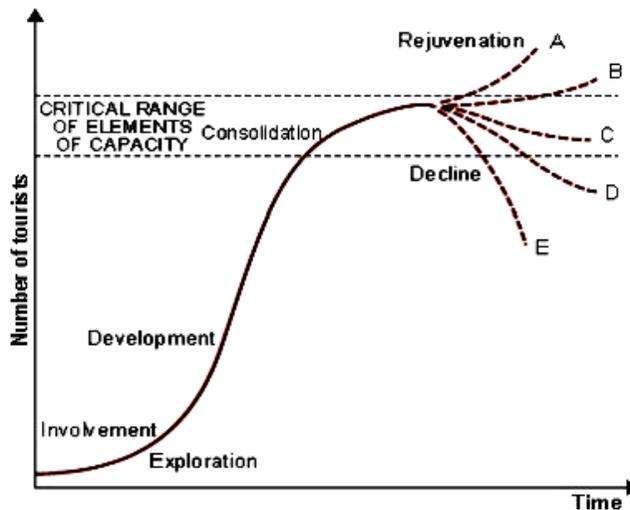


Fig. 2. Richard W. Butler's Tourism Area Life Cycle (on the basis of [1])

The basic idea of TALC Model is that tourist destination begins as a relatively unknown and visitors initially come in small numbers restricted by, for instance, the lack of access, knowledge or facilities. This phase is labeled as *Exploration* and the main virtue here is a cultural or natural value.

When more people discover the destination and the amenities are increased and improved. This is *Involvement* phase, in which inhabitants of the region start raise revenue from accommodation, gastronomy or other services. This is the period when the conveniences for tourists are welcome the most.

The *Development* phase begins when the tourist are becomes one of the main sources of revenue in the region and the number of tourists is similar of exceeds the number of permanent residents.

The next phase is *Consolidation*, which in Butler's Model marks the full of development of tourism functions in the project area. It means the slowdown of number of tourists' growth and giving tourism the dominant signification in the region.

Tourist arrivals grow toward some theoretical carrying capacity (*Stagnation*), which involves social and environmental limits. In Tourism Area Life Cycle this phase doesn't mean the standstill and depression but it means the development stage. This is the peak of number of visitors coming to project area and after that it starts to decline. The last phase in Butler's Model is either the *Rejuvenation* or *Decline* of the area's tourist function.

In case of the *Decline* there is a drop in number of visitors and the unprofitable tourist sites are closed. It means the tourist area can't be competitive and the location becomes unattractive. The area can however enter the *Rejuvenation* phase but it is impossible without complex recovery program implementation.

The possible trajectories indicated by dotted lines A-E are examples of a subset of possible outcomes beyond *Stagnation* phase (Fig. 2). Examples of reasons that can cause a destination to follow trajectories A and B toward *Rejuvenation* are technological developments or conveniences improvements leading to increased carrying

capacity. Examples of reasons that can cause a destination to follow trajectories C and D are unsustainable development or the finish of resources which attracted tourists. It can be also the congestion of the area. Trajectory E presents the likely way of a destination following a crisis.

In the theory there are many indicators that characterize the various phases of the cycle of tourist area development but we can define the phase only from the perspective of the whole cycle.

3. The lifecycle of geotourist project

The course of the logistic function which describes the Butler's Tourist Area Life Cycle may vary seasonally and differs regarding to the conditions and features of the tourist destination as well as numbers of visitors in different periods of time. The Butler's Model was tested by many researchers who found similarity with different types of tourist projects. Z. Kruczek and A.R. Szromek estimated a mathematical formula of the development of tourist traffic at the Salt Mine in Wieliczka from 1945 to 2009 [4]. While the logistic function is a great model to explain the development of many projects and phenomena, its interpretation is not a simple matter. On the other hand there is no possibility to predict different incidents using the model, especially in case of its last phase.

During the analysis of the development of the tourism traffic at the Salt Mine in Wieliczka over a period of 65 years several changes in the area's direction of development were identified [4]. Their interpretation showed that all phases are in line with the phases in the Tourist Area Life Cycle within two cycles. For example the period of 1978-81/1991 corresponds with the *Decline* phase. Then the reduction of tourists' visits was observed due to the introduction of Martial Law and weakness of socio-economic situation (Fig. 3).

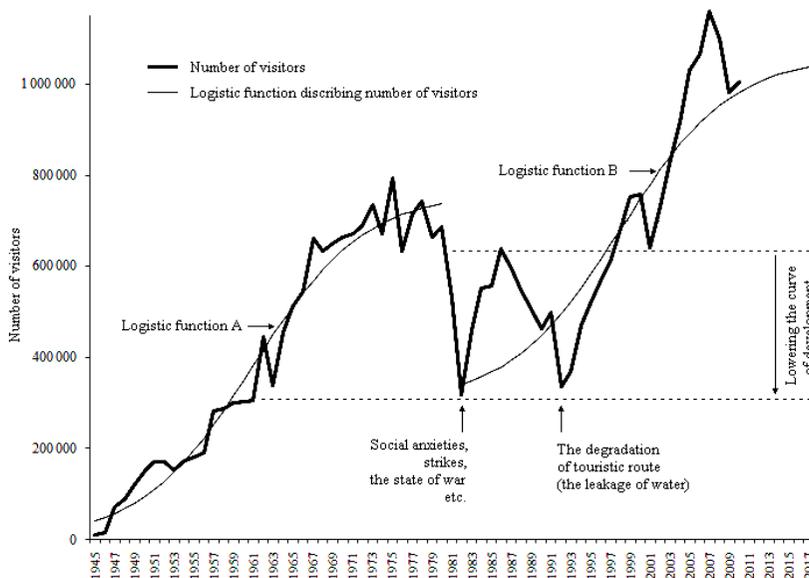


Fig. 3. Two cycles of development of the Salt Mine in Wieliczka (Source: [4])

If we examine the curves in the development of the intensity of tourist traffic in different kind of geotourist projects the variety of their courses will be noticed well. For instance the rise from *Exploration* to *Stagnation* may happen with different rapidity. In the newly opened Underground Track 'St. Johannes' Mine and Tourist Route "By the traces of the former ore mining" in July 2013 in the Mirsk Commune (Fig. 4) the *Exploration* phase has just begun.



Fig. 4. The interior of exhibition pavilion in 'St. Johannes Mine" in Krobica within the Tourist Route 'By the traces of the former ore mining' in the Mirsk Commune (photo M. Szpak)

In the *Exploration* phase of geotourist project the main role of its owner or operator is to build the brand of the destination. On the basis of new tourist infrastructure and its potential the system of short-term and long-term activities for taking advantage of that should be laid down. In the author's opinion the most important activities are recognition and establishing the tourist profile as well as the wide promotion campaign [3]. Owing to the knowledge about the visitor it is possible to create the products and services which are suitable to his expectations and needs. One of the way of visitor profile cognition is marketing research. The first phase in TALC Model is strongly connected with the project planning. It is possible to predict the numbers of visitors in relatedness with the tourist virtues' assessment and tourist attractions' planning.

In the *Involvement* phase also the reconnaissance of the perception and evaluation of a new tourist area by visitors may be very useful for preparing the development plan which will help to boost the number of visitors in the future (*Development* phase in the cycle). The duration of the *Development* phase varies in case of every undertaking. However, it might be extend owing to fulfillment the new tourists' needs. There is no clues for predicting when and why the *Consolidation* and *Stagnation* phases will start but sometimes we can foresee its symptoms. The *Stagnation* means the particular capacity with the social and environmental limits in definite time and under the definite conditions but sometimes its extension is manageable.

The Butler's TALC Model can be applied for planning of accommodation base development and development of the tourist attractions aim to counteracting the drop in number of visitors. The most of these changes manifestations creating the progress and the project development is connected with next impacts on the natural environment. These impacts almost always start within the geotourist project execution (reclamation process, infrastructure building, reconstruction of the adit etc.). It is very difficult, sometimes even impossible, to formulate policies that guarantee that tourism can be maintained for a long time without severely impacting on the environment [2]. This approach is based on the assumptions about the interaction between the tourists, the natural environment and the capital, and is very complex.

The beginning of the *Decline* phase (C and D trajectories in TALC Model) should be immediately noticed and the activities program for destination recovery must be prepared and practiced. The examples of such activities could be searching the new virtues of the geological or post-mining heritage site or development of additional recreational attractions. As a result of such intervention the trajectories C and D can change their destination course to follow trajectories A and B toward *Rejuvenation* phase. The tourism activities at this moment can also settle down to a plateau or still decline towards the closure of unprofitable tourist sites or objects.

It is obvious that the fortuitous events also happen (for example the flood in the project area or the Martial Law in case of the Salt Mine 'Wieliczka') but a lot of declines in geotourist project' lifecycles regard to the downturns of attractiveness for visitors.

Summary

The main benchmark of the project success is the number of visitors. The knowledge about the Tourist Area Life Cycle drawn up by Richard W. Butler can be very helpful in planning and management of the projects connected with preparation of geological and post-mining remnants in aspect of making them available for tourists. The phases of this lifecycle show the volatility of the number of visitors within the changes occurring the evolution of the tourist area. The cyclicity of the project development should prompt the management team of the geotourist project to devise the development strategies and to establish the contingency plans. The perfectly realized geotourist project should encompass different elements:

- assessment of tourist potential in geological and mining heritage sites,
- proper selection of objects/sites for future development,
- detailed objects evaluation according to their historical and cultural as well as recreational values,
- establishing actual conditions and development possibilities of these objects/sites in economics, legal and environmental aspects,
- monitoring the number of tourists, if possible,
- creation the project development plan and the vision of increase its value.

Only with pro-tourist attitude and above tasks' fulfillment the geotourist project could function in long-term perspective.

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