A New Approach to Monitoring Touristic and Cultural Routes: The Challenge of Development and Use of Indicators-Based Systems

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Abstract: The present paper results of an ongoing research project were it is expected to develop an information system to monitoring a cultural-touristic route. The route to monitor is the Romanesque Route of Tâmega. This Route is composed of 58 monuments located in the region of Tâmega in the North of Portugal. Due to the particular location of this region, that is between coastal zone, but not yet in the inland, it has a weak political influence, and it is reflected in the low levels of development at several levels, observed. The Romanesque Route was implemented in a part of this region in 1998, and enlarged to the all-region in 2010. In order to evaluate the socio-ecomonic impact of this route in the region a research project is being developed. The main goal of this paper is to open a discussion on the elements that must be taken into consideration to evaluate the economic and social impact of a touristic cultural route within a region and this one in particular.

Key-Words: Cultural Routes; Romanesque; Monitoring System; Economic and Social Impact;

1 Introduction

The present paper is the result of an ongoing research project which aims to develop a monitoring system of a cultural-tourist route – The Romanesque Route (RR) – located in the region of Tâmega in the North of Portugal. The final goal is to develop a technological platform – Information System - that will work as a decision support tool for decision makers.

In order to develop this system is extremely important to take into consideration mechanisms for tourism analysis. These mechanisms can be analysed from different perspectives: economic, social, environmental, can be direct or indirect, and they present impact in many aspects of the economy [1], [2]. In order to define a solid base of indicators, we started our research for the most frequent and relevant indicators in tourism monitoring.

According to the strategy defined for this system we needed to specify rightly the information system. Since they are from different natures (tourists, neighbours, political actors, business people, among others) it is necessary to look for a holistic approach instead of a directed one. This holistic approach lead us to new form of monitoring, however, it was necessary to do literature review in order to evaluate the state of art. From the literature review we will refer just those that seem to be closer to the goal of this project. Accordingly, we took into consideration two studies that analysed the Serralves Foundation in Portugal [3], and the Guggenheim museum in Spain [4]. Those studies suggested some analysis models, as well as some indicators, however targeting the economic/financial perspective. At the same time we were analysing some questionnaires done in similar projects [5], [6], [7]. From the questions, and results presented it was realized the necessity of concepts clarification, and different questionnaires according to the target group.

According to the WTO [1] as well as other recent studies on tourism the definition of this concept can be presented as *"a social, cultural and economic phenomenon related to the movement of people to places outside their usual place of residence, pleasure being the usual motivation"* and *"tourism has an impact on the economy, the natural and built environment, the local population at the places visited and the visitors themselves."* So, *"Having more and reliable statistics is essential for policymakers to make effective decisions"*. In order to get reliable statistics, it is necessary to know the tourist and to get their feedback [8].

Besides tourist, there are other important stakeholders, such as those that somehow can benefit from tourism [9], [10], [11], [12].

Bearing in mind the many different approaches that tourism might allow, the importance of common denominators in the methodological approaches and the cultural value of this route, we will present in section 3 a methodology to analyse the impact of this specific route in the region..

2 The Region and the Romanesque Route

2.1 The Region of Tâmega – A brief description

The region of Tâmega is composed of 12 *concelhos*[1]: Amarante, Baião, Castelo de Paiva, Celorico de Basto, Cinfães, Felgueiras, Lousada, Marco de Canaveses, Paços de Ferreira, Paredes, Penafiel and Resende.

With an area of 1,988 km^2, accounting for 9.3% of the North region, the Tâmega is a heterogeneous domain, the transition between the Metropolitan Area of Porto and the interior of the North region. Here resides a population of about 550,516 inhabitants (2011). This figure makes the region the third largest in Portugal in terms of residents, after Lisbon (country capital) and Porto (north capital). The main feature of this study area is the existence of a strong industrial component and manufacturing. However, the existence of a rich cultural heritage, has had the effect of expanding the tourism industry, aspect that motivates the present study. Below we present the North region map, so that it is possible to understand Tâmega location.

Fig. 1 Map of Region of Tâmega in the North of Portugal

[1] Concelho: Portuguese administrative unit divided into smaller units called freguesias.

This region has always played a leading role in the occupation and organization of the territory, lying in the heart of a World Heritage Triangle, comprised by Porto, Guimarães and Vale do Douro (the Douro Valley).

2.2 The Romanesque and the Route in Tâmega[2]

Throughout the second half of the eleventh century and the beginning of the twelfth century a series of transformations combined to trigger the emergence and expansion of the Romanesque style.

The Romanesque architecture in Portugal is mainly concentrated in the Northwest and the centre, being coeval with the period in which its habitat is structured, with all the parishes and an entire religious and neighbourly organization of villages. The expansion of the Romanesque style does not exactly correspond to the reconquest, but to the territory re-organization. The dioceses (catholic divison unit) are divided into parishes which form, between the Rivers Douro and Minho, a very dense network.

Being a predominantly religious architecture, the Romanesque is much associated with the diocese and parish's ecclesiastic organization and with the monasteries of the several monastic orders founded or rebuilt in the 12th and 13th centuries.

Within the Portuguese Romanesque, the Romanesque architecture of the Tâmega has very peculiar and regionalized characteristics.

The sculpture shows a very particular personality presenting, almost systematically, vegetal elements. The architecture of this region adopts, most of the times, rectangular chevets, although there are more academic specimens using semicircular apses, like and façades where rather deep portals are fitted.

In the land of the valleys of Sousa, Tâmega and Douro, in the heart of the North of Portugal, stands an important architectural heritage of Romanesque origin.

This heritage is structured in the Route of the Romanesque, germinated, in 1998, within the municipalities that comprise the VALSOUSA - [Association of Municipalities of Vale do Sousa] and extended, in 2010, to the remaining municipalities of the NUT III - Tâmega, thus bringing together in a supra-municipal project a common historical and cultural legacy.

[2] Based on [13]

The RR consists of 58 monuments located in the 12 municipalities that make up the NUT III - Tâmega. The theme for the combination of these monuments - monasteries, churches, memorials, bridges, castles and towers - is the Romanesque architecture and its relevance within the territory of the Tâmega and Sousa.

In December 2009 RR became a member of TRANSROMANICA, the largest European network of Romanesque destinations, based in Germany.

Anchored in a set of monuments of great value and exceptional characteristics, RR intends to take on a role of excellence in the scope of cultural and landscape touring, able to position the region as a reference destination of the Romanesque.

3 Methodological Approach

In order to meet the objectives presented at the end of last chapter, as any touristic project needs promotion and a group of people to make it succeed. Those needs are even more critical when the investments are done in cultural tourism. So, one of the goals of this project is to evaluate the economic and social impact that RR can create in this region. In order to have that information, it is necessary to monitor the different type of revenues that can be achieved in a program like this.

The advantages of monitoring and evaluation are particularly recognized in international organizations. Those organizations have made these methodologies important tools in the service of developing programs and evaluation of results, with reflections in the improvement of the strategies implemented. According to the United Nations [16] the monitoring can be defined as:"*a continuing function that aims primarily to provide the management and main stakeholders of an ongoing intervention with early indications of progress, or lack thereof, in the achievement of results. An ongoing intervention might be a project, programme or other kind of support to an outcome*". However, from the literature review done is it possible to say that there is no work in the monitoring area of cultural tourism routes. Most of work in this area is focused on routes structuration and promotion. Thus with this research project we intent to present a proper definition of a set of indicators and the appropriate analysis model that will allow to assess the socio-economic impact of the Romanesque route in the region.

The system to be developed will allow, in real time, to collect information about the effects of RR in the region. These effects should be distinguished between direct effects (impact directly generated by a set of activities carried out in the context of RR) and indirect effects (incremental economic activity resulting from activities performed by RR).

3.1 Data Collection Strategy

The first step of this project consists in information and data collection. To do so, it is necessary the use of three techniques: literature review, questionnaires and interviews. Based on the results we will try to find the best fit analytical models. For example, may be used the following methods of analysis: input-output analysis [14] and revealed/stated preference methods [15]. However, once the project is at an early stage still it is not the aim of the present paper, to define the model, but the information sources, and requirements for that "to build" model.

The first analysis will be divided into 3 parts: Regions of *Sousa* (where the route was implemented in 1998); Region of *Baixo Tâmega* (2010) and the integrated perspective: The region of Tâmega composed of the 2 mentioned sub-regions. The analysis will be performed considering the groups of stakeholders and techniques presented in the table below.

Table 1. Identification of the study groups and respective analysis techniques

Intervention Group	Visitor/Tourist
Data Collection Technique	Face to face and on-line questionnaires
Relevance of the Analysis: Visitors and tourists are the main group to be studied. In fact, most of studies are based just on this group. Since they are the main source of revenue it is important to know this group, so we need a tourist/visitor profile. Among other information we will try to describe their personal and family characteristics, motivations, previous research they had done on RR, visited (or to visit) monuments. At the same time we will ask them to evaluate the services provided by RR structures. Along with their contact with the route, we will also get information about, accommodation, meals, transportation, and other relevant factors, in order to evaluate the services provided and set goals to improve the provision of services.	
Intervention Group	**Beneficiaries** (Two categories) (1) Those who benefit financially from the existence route (accommodation, restaurants, touristic operators, cafes, handicraft, construction/ rehabilitation; (2) Other stakeholders, for example, educational service – nonfinancial beneficiaries.

Data Collection Technique	Face to face and phone questionnaires

Relevance of the Analysis:
Here it becomes important to assess the role RR while generator of revenue for companies in the region (stakeholders - first category defined). With the questionnaires we will try to identify the economic impact that tourists/visitors have in the local economy. Together with the economic impact, the social one will be also measured for example by the percentage of employments created due to the existence of this structure (RR).
For the second category, it is important (among others):
To understand in what extent the RR is connected to the community, as for instance educational services, historical events, religious practice (a significant number of monuments are churches).
To evaluate the route as a mechanism to support cultural development of the population.
To understand the involvement/importance assigned by these groups to the RR (value perceived, community embeddedness, emotional links to the monuments, …)

Intervention Group	**Neighbours:** Includes people and businesses who live / exist near the monument
Data Collection Technique	Face to face Interview

Relevance of the Analysis:
Those who live closer to the monuments may have a different perspective about the touristic route. Do they see the route as positive or negative factor? Did the route improve their life conditions by bringing tourists to region, thus improving businesses in that area? Did the Route promote better infrastructures? Environmental improvements? Or they just don't know the existence of the RR structure?
It is important to assess the evolution and recognition of the RR. Assess whether there are emotional links to the monuments and pride on it as a regional element. Willingness to contribute or collaborate with the route in the dissemination and organization of events associated with monuments.
For those who have a business on the monuments surroundings it is also important to evaluate the RR impact on their revenues. Along with this last analysis it must be considered if there is an average impact by tourist.

Intervention Group	Direct/indirect actors such as, presidents of municipalities and *freguesia*, Directors of schools, or neighbours that assume a responsibility role in a monument (caretakers, janitors)
Data Collection Technique	Face to face Interview

Relevance of the Analysis:
Assess the importance and commitment of different actors, decision-makers in the region, towards the route.

To understand if the existence of the RR structures is perceived as an added-value and growth factor for the region.

From the identified groups it is important to notice, that most of literature and even proposed questionnaires are aiming one specific group, the visitors/tourists. In fact, those are a key element. Those are the stakeholders who bring money to the region however, it is necessary to keep them coming and/or returning, and for that it is important to have not only a functional structure, but also a friendly and welcoming environment which is achieved mainly through local populations.

In order to evaluate the mentioned factors, we will present in the next section a proposal for a monitoring system.

3.2 A Monitoring Model Proposal
The ability to objectify, synthesize and evaluate that indicators allow, is evident when they are used in systems more or less complex. Frequently they are attached to the set of dimensions/topics that comprehensively we want to explain. Used in coherent systems, with their own logic and defined specific goals, often framed within a great theme, indicators are an important tool that allows regular monitoring. This monitoring might be either at the level of direction and evaluation of performance or simply in characterization of evolutionary trends [17]. Thus, in Figure 2 is presented a first proposal of the monitoring model. This model is composed by 3 layers: (**1**) Romanesque Route characterization; (**2**) Definition and selection of indicators; and (**3**) Monitoring layer. On Figure 3 we can find a representation of the monitoring cycle.
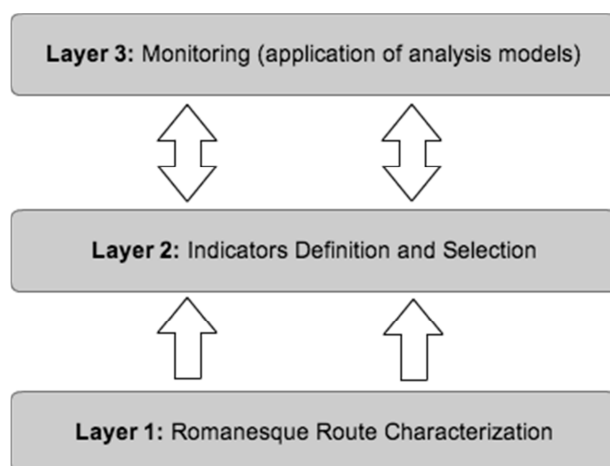

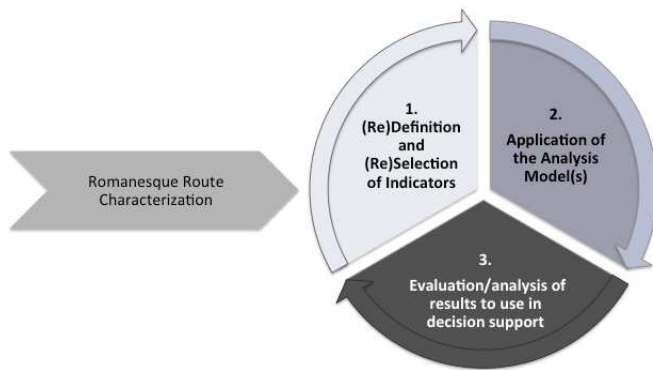Fig. 2. Monitoring approach using a layer-based perspective

Fig. 3 Monitoring Cycle

It is only possible to define and select correctly the set of indicators (layer 2) and models to be applied to each case after a correct characterization of the system to be monitored (in this case the RR – layer 1). This characterization was accomplished, as already described, based on literature review, being the next step the implementation of questionnaires and interviews. Based on the first results, the set of indicators were defined for the first iteration of the monitoring cycle. The iterations procedures are presented on Figure 3.

At this stage of the project, it is possible to present some examples of the defined indicators grouped into categories (see table 2).

Table 2. Monitoring suggested indicators

Indicators Category	Examples of Indicators
Rural Development Monitoring Indicators	employment growth (at the level of accommodation, restaurants, transport services); evolution of the internationalization; degree of openness; …
Monitoring indicators of tourism	variation in accommodation capacity; evolution of occupancy rate (hotels and rural spaces); indicator of seasonality; …
Heritage Buildings and Places Monitoring Indicators	rehabilitation of built heritage rate; number of visitors; monthly revenue; monthly costs ...
Accessibility and Transports Indicators	affordability of transport, access to motor vehicles, accessibility of public transport; road signs;…

The several categories of indicators are created based on the need of instruments that support the RR management in decision making. According to the goals and expected results defined by a management group, different categories and indicators can be defined.

In layer 3 (Figure 2), the monitoring model uses the information (or data) from layer 1 to calculate the indicators defined at layer 2. This process allows management groups (in this case RR management) to monitor the socio-economic impact of RR based on different analysis models (defined in layer 3). The models must be selected by managers considering the perspective of analysis that seek to obtain and the type of support they need. Therefore this means that, at each iteration, of the cycle is possible to change the set of indicators, as well as the analysis models considering the current needs of decision makers (managers). This dynamic view of the monitoring process is only possible once this process is executed using a web-based information system. This information system (technological platform) will be the main outcome of the project.

By the time, this paper is being written, the project team is working on the indicators and models. Even being an early stage of the project, that is a crucial moment, since, the indicators and the model (or system) to include those indicators, must be very well defined and designed in order to allow results (through and informatics system) valid for evaluate and to support decision making in this particular case of a cultural-touristic route management.

4   Conclusion and Further Research

As presented along the paper our goal was not to present the results from the monitoring system implementation, neither results on the impacts that such a route may have in the region. However both results are undoubtedly factors to present as further research. By developing this project it is expected to have in first place results on the economic and social impact of the RR in the region of Tâmega.

The question that arises is about the indicators to use. As previously presented this is a dynamic project, and it will be possible to replace the indicators if they are not appropriated, or if the management realizes that those goals are reached so is time to monitor something different.

This is a logic that is not distant from the Balanced Scorecard (BSC) approach, with different perspectives than those considered on the BSC.

At the same time, this is not a particular project for this region, and that is one the reasons that leaded the team to present this paper at this early-stage. In many regions there might be touristic routes, or other type of routes that can be formally

or not established. Most of them exist without a monitoring system. At most is it possible to find studies on those routes, or programmes but in a particular period of time. The innovation here suggested relies on the dynamic information system. We believe that the approach might be used in different regions, and in different routes. For that it is necessary to adapt the system represented in Figures 2 and 3.

Another distinctive factor of this work is the inclusion of most of stakeholders. Normally the attention is dedicated for tourists/visitors, those who that can bring profits, since are the money spenders. However, in order to improve internal consumption, there are many other aspects to be considered than the monuments *per se*. It is necessary to establish a vision, a mission and a strategy for the route and the region. In the present paper, we suggest to consider for this system the tourist/visitors, the neighbours, those who can get some benefits (financial or not) from the route, as well as the decision and most of time opinion makers.

As a final remark, it is important to mention that this is an ongoing project, in a critical stage, and all the inputs, suggestions and critics are welcome in order to design the best possible model.

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