

POSSIBLE METHODS FOR MEASURING ECONOMIC IMPACTS OF CULTURAL TOURISM

(In the frame of the reaserch project “Mapping of Cultural and Creative Industries in the Czech Republic”)

Handbook of Cultural Tourism

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1 INTRODUCTION

The cultural tourism belongs to most growing types of tourism. Tourism is considered to be an important economic factor developing local economies and bringing nations together. On the other hand culture is often considered to be a sector that just asks for subsidies. This myth has been displaced by various analyses that approached culture from the economic point of view and showed that culture is an important factor for supporting domestic and international tourism and well and therefore a generator of economic growth of touristic destinations.

One of the most effective means between culture – either tangible culture (historical monuments, either movable or immovable) or intangible (art, festivals, concerts, exhibitions, theatre plays, etc.) – and economic benefit is tourism or tourists that spend money on entrance fees, accommodation, boarding, transport, etc. These cultural matters are usually subsidised by state or municipalities and so it is important to know, how to measure return rates of such financial support.

Tourism influences the whole community and its gains and costs in some form relate to everyone in the particular destination. Studies focused on economic impacts provide quantified estimates of these mutual relations and they help to understand the influence of tourism on regions. Quantification of tourism economic impacts plays an important role in planning and developing of local, regional or state economy.

However a study of economic impacts can be elaborated for any destination, institution or activity, it is the most popular among cultural organisations. Above all it helps to enhance the importance of the particular organisation or field of culture in the eyes of other fields, as well as of potential sponsors and also public. In consequence, the economic results support political decisions on behalf of tourism and culture development.

Studies of economic impacts are often elaborated for cultural organisations that attract a lot of visitors, i.e. organisations that influence tourism and destination management. Among the submitters sometimes belong also municipalities or regions that want to know economic importance of cultural activities in their area.

Economic impacts are often quantified by means of following economic indicators:

- turnover
- gross value added, or gross domestic product
- tax incomes
- improvement of balance of payments (in case of international tourism)

The social or social-economic indicators that are influenced by cultural tourism and that are measurable are following:

- employment rate (job positions' creation)
- employees' incomes (compensations of employees)

2 WHY TO MEASURE ECONOMIC IMPACTS AND BENEFITS

Elaboration of the study of economic impacts can be beneficial not only for the organisation itself, but also for their sponsors, grantors or subsidies providers.

Managers of cultural organisations can use such a study for an evaluation of their organisations' economic importance and they can also use it as an attachment of project submission while asking for subsidies, grants or sponsor contributions. Donors nowadays support more likely organisations that can persuade them of their efficiency and ability to bring new capital to the region.

The authorities that provide subsidies, grants or donations can merit from these studies while decision making. If all major organisations or at least organisations that are asking for subsidies had their studies of economic impacts elaborated it would have simplified the subsidy requests' evaluation and therefore it would be one of the criteria in subsidy policies. But of course the economic success or efficiency cannot be the only criteria in subsidy policies for cultural projects. The most important are immanent and social values of culture that are impossible or hard to quantify.

Other advantage that can be brought up with the studies is their exploitability by **state and local authorities** that usually decide on strategies of tourism and culture. E.g. with a help of visitor surveys, the authorities can find out important information about visitors' commercial behaviour, length of their stay, etc. This information can be used for economic predictions in connection with the bodies' decisions but also for planning of regional tourism development. (Raabova, 2010)

3 METHODS OF MEASURING OF ECONOMIC IMPACTS AND BENEFITS

Various methods of economic analysis can be used for measuring of economic impacts and benefits of projects and various economic activities. Some of them are used and recommended (these are mostly based on commonly used economic analysis), others are being developed for potential application on both private and public sectors, considering not only rough economic results, but also non-economic values of culture for society. Each of the methods is very specific and therefore each of them is designed for a particular purpose or particular type of users. Each of the methods also has a different form and structure of inputs and outputs.

In this chapter, we introduce only a few chosen methods of project evaluation that we consider to be appropriate for project evaluation in the field of cultural tourism. Some of the methods are more suitable to use before the realization of a project (ex-ante) and the others can be used after the project has been finished (ex-post).

- A) Ex-ante methods – They are used mostly for investment decision making, usually before the event or culture activity starts (music festival, theatre festival, reconstruction of historical sight, etc.). They help investor to make decision, whether to support the event/organisation or not.
- Cost-utility methods:
 - Cost-minimization analysis (CMA)
 - Costs and Benefits analysis (CBA)
 - Cost effectiveness analysis (CEA)
 - Cost-utility analysis (CUA)
 - Multicriteria analysis (MCA)
 - Value analysis (VA)
- B) Ex-post methods – evaluation tools used during and after the realization of the project. They are appropriate for the [subsequent](#) evaluation of the project’s success and its economic return of the investment.
- Input – Output analysis (incl. input-output multipliers)
 - Common comparative method
 - Economic Benefits Framework

From above stated methods there will be only the mostly used methods described in following text.

3.1 COSTS AND BENEFITS ANALYSIS (CBA)

The Cost-Benefit Analysis (CBA) with other methods as CEA, CMA and CUA belongs to Cost-utility methods that are used for public sector projects’ evaluation (Ochrana, 2005). The CBA is a method based on ratio-metric approach in decision making processes. The methods measure costs (C) on one side and on the other they measure the benefits (B) of a particular project.

In the frame of CBA we can differentiate the narrowed CBA and the extended CBA. The narrowed CBA analyses just the direct costs and benefits of an investment. It is usually easy to quantify all the costs and benefits. The extended CBA is usually called as “the analysis of social costs and social benefits.” In this case there often appear items that are not easily measurable in money. Those are usually expressed in words or in figures but without monetary units and with text comments.

CBA is very often used in public funds and public infrastructure projects evaluation. In many cases the projects are a public domain that is not directly paid for its use (mostly it is paid indirectly e.g. by taxes) and the stakeholders expect indirect welfare as for example better services, satisfaction or better living conditions of community, better conditions for entrepreneurship, creation of new job opportunities, expansion of tourism, etc.

For the needs of Cost-Benefit Analysis, there is usually used following terminology:

- **Costs** are a volume of sources we have to sacrifice to get demanded goods or services
- **Utilization** is total satisfaction due to consumption of commodities
- **Benefit** is defined as a monetary appraisal of utilization (Ochrana, 2005)

The basic evaluation criteria used for CBA is based on observation of the Net Present Benefit when the criteria applies:

$$B > C$$

Next to the calculation of the Net Present Value ($NPV=B-C$) we can use also the aspect of efficiency from invested monetary unit. This is expressed by a following formula:

$$B / C \geq 1$$

B ... Present Value of Benefits (in monetary units)

C ... Present Value of Costs (in monetary units), (Ochrana, 2005).

The use of this method is actually very clear. With a help of this method it is possible to estimate some of the benefits in advance (e.g. benefits of a festival taking place in a particular region), including indirect benefits in a form of visitors arrivals, improvement of cultural life, indirect advertising of the particular region or creation of new job positions. Comparing with expected costs of the investment, this analysis provides to organizers and investors a picture of possible return rate of their investment.

3.2 MULTICRITERIA ANALYSIS

Multicriteria Decisional Analysis (MCA) deals with evaluation of possible options according to several criteria, while an option evaluated well by one criterion generally is not evaluated well by another criterion. Method of multicriteria decision making was developed to help in conflicts of mutual antithetic criteria. This method is good for summarization and assortment of information about variant projects (Fotr, Dědina, Hružová, 2006).

Criteria for evaluation can be

- quantitative – usually expressed in numbers or
- qualitative –expressed by an appropriate chosen ranking scale with definition of what is better if maximal or minimal values of the scale. The purpose of models in these situations is either finding the best option according to all perspectives, exclusion of ineffective options or forming a set of options (Mikš, Tichá, Košulič, 2008).

A disadvantage of this method is that personal preferences of the evaluator can influence the final result and also that bad setting of the range of point scale and weight ratio can influence the final result very much. The person who is responsible for decision making should be as matter-of-factly processing the analysis as possible. Possible way how to improve objectiveness, is to have more evaluators working on the analysis or to separate roles of submitter and evaluator to different people.

A decision in theory of multicriteria optional analysis means to choose one or more options from a set of acceptable options and to recommend it for realization. As an example we can mention a situation when an investor is choosing a place for a festival. The investor or organizer has probably chosen several locations for the festival. Then he has to determine suitable criteria (e.g. possibilities of public transport commuting to the site, lodging capacity, etc.) and to give points or weight to criteria for each of the chosen places. Evaluation of this method finds the best location for the event.

3.3 INPUT-OUTPUT ANALYSIS

Input-output analysis is considered as the most accurate and the most sophisticated among the methods for calculation of economic impacts of an institution, activity or a project (Stynes, 1997). This analysis is based on tables of use and supply that are published by statistic office of the particular country. The input-output model represents the interdependences between different branches of national economy and can serve as a tool to calculate input-output multipliers. With these multipliers, we can quantify direct, indirect and even induced impacts of a new investment and its influence on regional economic indexes (turnover, Gross Added Value, Employment Rate, employees' incomes or firms' profits). This method can quantify economic impacts of a project including all the multiplied effects coming from the whole supply chain.

Required input data for input-output analysis is:

- 1) Data on the volume and structure of expenses that visitors spend during their visits (the best source is a visitor survey running during the project).
- 2) Data on the volume and structure of expenses of the organization itself, the amount of employees and total attendance (usually taken from an internal evidence of the institution).

The exploited data is linked-up on multipliers of production, GDP, employment rate or employees compensations for individual industries.

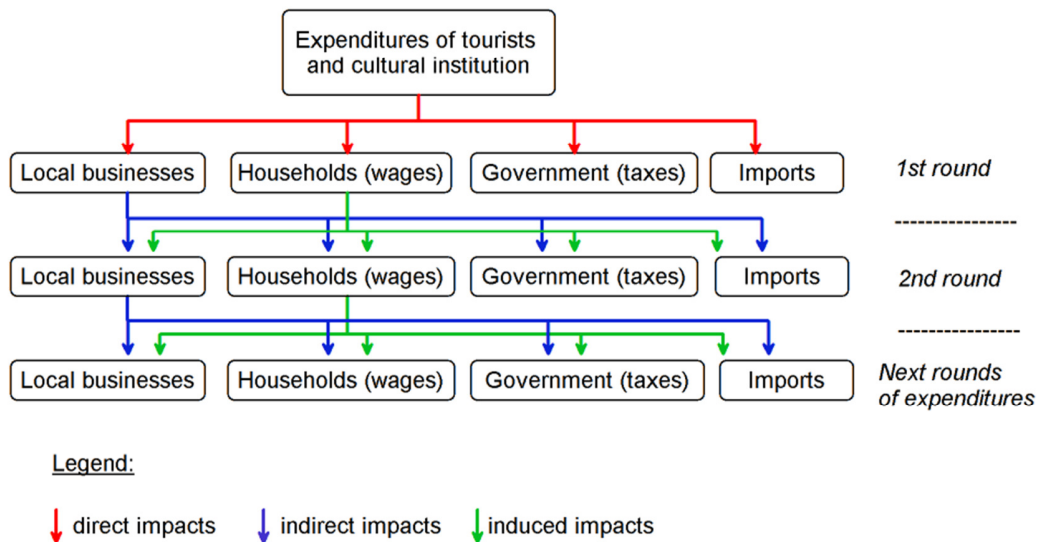
Although there are various definitions of the direct and indirect impacts, the majority of the authors (as e.g. Stynes, Heilburn and Gray, Whiting, Australian Government) use following terminology:

Direct effects – the changes in the economy that are caused by direct expenses of a cultural organisation or their visitors (e.g. production growth of the direct suppliers of products and services demanded by visitors or the organisation itself).

Indirect effects – the changes in the economy that are caused by subsequent suppliers' production in the consequence of further related economic activity in analysed region (direct suppliers demand goods and services from their sub-suppliers and these sub-suppliers demand other goods and services from their own sub-suppliers), so this can be understood as the changes that involve all other production activities brought up by relations between direct suppliers and their subcontractors in the local economy.

Induced effects – the changes in the economic activity that are caused by employees of all involved organisations and their spending of wages earned due to particular cultural event.

Figure1: Direct, indirect and induced impacts (Raabova, 2011)



Many studies and models of economic impacts do not involve induced effects into the total effect on local economy, in order to maintain conservative results and to avoid overestimation of the total impacts.

The advantage of this method is mainly the possibility of quantifying indirect, as well as multiplied effects of the first investment. The disadvantage is its expert and time demandingness, these studies are usually elaborated by specialised economic companies.

Case study start

A number of economic impact studies for big international festivals and cultural events are based on this analysis (e.g. Bregenz Festspiele 2004, Edinburgh Festivals, Prague Quadrennial of performance design and space 2011)

For example the study of IHS (Institute für Höhere Studien) on the Bregenz Festspiele 2004 introduces that the festival budget was 20 mil €. It was co-financed by subsidies from public sector. The subsidy volume was 28,5% of the whole budget (5,7 mil €). The tax incomes collected due to the festival were about 21 mil €, what means that each euro given by the state was paid back four times. Then the study quantifies total direct impact of the event on volume of business sector production in approximately 167 mil €. The festival also creates approximately 1150 full-time jobs.

Similarly a new study for Prague Quadrennial of performance design and space 2011 states that the PQ visitors spent around 164,2 mil CZK for subsidiary expenditures, as for accommodation, boarding, shopping, etc. The total expenditures of visitors of this event had an impact on Czech economy production of 310.9 mil CZK (12.44 mil €) and around 83.5 mil CZK (3.34 mil €) on an increase of gross added value (resp. GDP). Expenditures of the organizer and PQ visitors generated 166.7 whole-year full-

time job positions. The Czech state profited around 53.6 mil. CZK (2.14 mil. €) on taxes and social and health insurance. (Raabova, 2011)

Case study end

3.4 COMMON COMPARATIVE METHOD

In case the input-output analysis is not possible or it is too demanding, it is possible to simply calculate elementary economic impacts of researched event or organisation with a help of basic data on visitors' expenditures (exploited from questionnaires) and on the organisation's budget.

For example such a simple method was used for the Prague Fringe Festival 2007 (Hollands, 2007). The organisers realized a visitor survey and found out the demographic structure of the visitors, their satisfaction with the event, whether the event was the reason for their visit to Prague and mainly how much money they spent daily during their stay in the city.

Since majority of the visitors came from abroad, the organisers calculated new capital brought to the region and the efficiency of the city-hall provided subsidies. The main result was that one Czech crown provided by the municipality was returned by eight crowns spent by the visitors in Prague..

3.5 SOCIO-ECONOMIC BENEFITS FRAMEWORK

The Economic Benefits Framework was developed in Canada (Whiting, 1999) with the aim to involve not only the strict economic values but also the other values into evaluation of cultural organisations. So the framework tries to broaden the results of brief input-output analysis.

The Canadian generalized framework of socio-economic benefits provides a logical method of describing the benefits derived from the culture sector in a „supportive fashion“. The framework applies current approaches to economic valuation, including the Total Economic Value approach. This concept attempts to illustrate and quantify the economic values derived from a particular activity, area or institution. It comprises the Use Value, as well as Non-Use Value of the institution/activity, including all the indirect benefits as the option value, bequest value and existence value (Whiting, 2001).

The framework is based on two fundamental principles: 1. there are three categories of beneficiaries of the various programs and products of heritage institutions; and 2. the value of the benefits within these benefit categories differs from different perspectives of valuation (or different _account registers).

Figure 2: Total Economic Benefits Framework (Whitnig, 2001)

Generalized Framework of the Total Benefits of the Arts and Culture Sector		
<i>Benefit Category:</i>		
PERSONAL	BUSINESS	SOCIETAL
<i>Definition:</i>		
benefits accruing to stakeholders (users and non-users)	benefits derived from the net redistribution of commercial activity from one area to another	unallocatable benefits to either individuals and/or businesses yet indivisible and tending to be societal in scope
<i>Benefit Components:</i>		
Use Values: - direct use - indirect use - future use	Impacts associated with attributable spending by stakeholders and by producers on management and development	Health effects - mental, physical, spiritual
		education benefits
international responsibilities and agreements		
contributions from outside		
business location decisions		
scientific benefits		
identity - national, local, personal		
community cohesion		
"quality of life"		
others		
Non-Use Values: - option value - existence value - bequest value		

4 CONCLUSION

The methods mentioned above can help to express economic impacts of culture activities in particular regions. It is possible to use modified methods of standard economic analysis that are usually used for evaluation of investment projects (e.g. many of important festivals or museums have studies based on input-output analysis and multipliers). If we want to emphasise the non-economic and social benefits of a cultural organisation or a cultural event to a region, it is more appropriate to use special methods that are designed for comprehensive evaluation of cultural projects.. However, these methods are still developed and still not commonly used among cultural organization.

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6 FURTHER READING

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7 BIOGRAPHICAL NOTE

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