

**COMPARING AND CONTRASTING THE ALTERNATIVE METHODOLOGIES
AVAILABLE FOR EVALUATING THE IMPACT OF TOURISM**

**STUDIUL COMPARATIV PRIVIND METODOLOGIILE DE EVALUARE A
IMPACTULUI TURISMULUI**

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Rezumat

Industria turistică are un impact asupra unei țări-destinație. Tema acestui articol este de a compara metodologiile de evaluare a impactului turismului. Turismul poate fi una din alternativele de dezvoltare a unei destinații, și uneori unica posibilitate. Din aceasta cauză, este foarte important să comparăm beneficiile și costurile pe care dezvoltarea turismului le presupune ca investiție posibilă. Rezultatele unei astfel de investigații au o importanță deosebită în planificarea unor investiții în turism.

Fiecare metodologie are puncte tari și puncte slabe. Ca urmare, în funcție de obiective, este recomandabil să se combine diferite metodologii pentru a obține maximum de beneficii cu costuri minime din punct de vedere economic, socio-cultural și al dezvoltării mediului.

Abstract

Tourism has impacts upon a destination country. The aim of this work is to compare and contrast the alternative methodologies available for evaluating the impact of tourism. Tourism can be one of alternatives for development of a destination and sometimes the only possibility. For that reason it is very important to compare benefit and cost that tourism brings with corresponding values of alternative investment. Obtained results represent a very important input for planning and also for decision making policy.

Different methodologies bring different results, different techniques have their own strengths and weaknesses. For that reason, depending on the need, it is important to combine the methodologies in order to achieve the maximal benefit and minimal costs, from economical aspect, socio-cultural and environmental development.

Key words: carrying capacity, methodologies, tourist, host, tourism impact, tourism planning.

JEL classification: O11, Q01, R11.

**1. INTRODUCTION ABOUT IMPACT OF
TOURISM**

Tourism is a very complex branch that produces a number of economic, environmental and social impacts in destination areas. Those impacts can be positive and negative. For that reason it is necessary to provide good planning and management in order to minimize and even eliminate possible negative effects. Economic impacts have been studied a lot and usually their positive sides are focused. Opposite from that, with social and environmental impacts usually the negative sides are observed. Their analysis has started only recently, usually during conflicts and overcrowding in destination provoked by arrival of tourists. That is why it is important while planning to evaluate all direct, indirect or induced impacts of some effects, in order that tourism bring benefits on a long term to residents and to tourists.

Research on impacts can be done in many different ways. For their measuring there are many different methodologies, which depend on the nature of impacts. Quantitative methods for recording the economic impacts have been in use for a long time, but to evaluate socio-cultural and environmental effects is much harder. However, what appears to be a benefit for one group of people in a community can be a suffering for others: noise, pollution, crowding and modified lifestyles.

But, all these impacts are interlinked and for that reason it is important to examine the carrying capacity. That is to find out a level of tourist activity which produces the impacts in a long term, which are acceptable for both, tourists and hosts. It also maintains sustainable economy in a long run. Carrying capacity depends on a number of factors like: duration of a visit, characteristics of tourists and hosts, geographical concentration of visitors, on level of seasonality. If a carrying capacity is exceeded, negative impacts on destination are increasing while positive ones are decreasing. According to (De'Kadt, 1979) from the contacts achieved by tourists and guests, different impacts can be produced, positive as well as negative. Usually when a tourist and a host are exchanging their views on culture or information,

these are positive. More negative impacts are produced when a tourist is buying goods/services from the host, or when they are sharing some facility, for example beach. In order to provide meeting the needs of tourists and hosts irreplaceable is a role of impact research which presents an input for planning tourist destination. Sometimes it is difficult to separate impacts and so they are looked into as socioeconomic and sociocultural. First of all we shall look into impacts, after that relevant methodologies application and try to compare.

2. IMPACTS (ECONOMIC, SOCIOCULTURAL AND ENVIRONMENTAL)

2.1. Economic impacts

Like we said before economic effects can be positive and negative. **Direct economic benefits** of tourism take into consideration:

- increasing foreign exchange earnings
- increasing income
- increasing employment
- increasing the government revenues

"Tourism can be an important component of the economy, ranging up from 5 to 10 percent of the total GNP or GRP for both domestic and international tourism in some large countries or regions, and can be much more important in smaller countries with well developed tourism sectors..." (Inskeep, 1991)

What is considered by this?

In economically undeveloped countries, for example, increase in employment and income provide staying of younger people within the destination, meaning a decrease in migrations. Also, by increased government revenues from different taxes, the development of infrastructure is provided and general economic development is obtained.

Indirect economic benefit of tourism is to encourage development of other economic sectors like agriculture, different types of manufacturing, fisheries, by buying the goods and services from them. Further on, improvement on all kinds of infrastructure, transport, greater possibility for employment of female workers, shows a big improvement in economic and cultural development of destination. However, if tourism is not well planned and managed, can decrease the positive effects and provoke the negative ones.

Negative economic effects: There are different conditions which can provoke residents:

- physical presence of tourists
- demonstration effects
- foreign ownership
- foreign employment

2.2. Socio-cultural impacts:

Uncontrolled tourist development, increased social problems that can be manifested through:

- growth of undesirable activities (gambling, prostitution, crime, drugs)
- social dualism (acceptance of foreign values, hanging on the traditional values, cross-cultural exchange)
- demonstration effects (behaviour, attitudes, attire consumption patterns)

Negative cultural effect which emerge from commercialisation/ revival of culture:

- art and crafts
- ceremonies
- rituals
- music and dance

2.3. Environmental impacts:

Tourism has an impact on environment change.

Positive effects of direct environmental impacts are:

- the preservation (restauration of historic buildings and sites)
- the creation of national parks
- the protection of beaches
- the maintenance of forests

However, whether the effects will turn up positive, depends a lot on the hosts' point of view, whether they accept certain development.

There is a number of examples of **negative effects**. We shall mention only a few:

- impacts on quality of water, air, noise levels
- sewage disposal into water
- pollution problems
- wildlife problems etc.

3. METHODOLOGIES

3.1. Cost-Benefit Analysis

Cost-benefit analysis is used for evaluation of assessing tourist impacts on national economy. By a simple listing, evaluation and comparasment of costs and benefits of tourism, analysts can understand a problem and choose a better solution. This approach analysis projects on macro bases, in term of foreign exchange, employment, income and government revenue in relation to the expenditure on development. It can be used for comparesment of costs and benefits during the investment in different sectors. Apart from implications on tourism, cost- benefit analysis is a screaning also for other economy branches which are in interaction with tourism.

The base for recording of economic effects is tourist expenditure, which depends on the type of tourist market as well as on level of development. Tourist expenditure survays determines the size and

distribution of tourist spending which is a very important input related to planning. In new regions evaluation is made on expenditure bases in similar destinations. During planning, the impacts of environmental and socio-cultural factors in the area are also joint with this factor. Additional factors are included too: necessary costs for development of infrastructure, transport, accommodation, restaurants, existing cultural services, attractions development and other facilities. Also, when we observe the social side, it is important to have in mind central costs that will arise by migration of workers (medical and public services). So, apart from direct effects, indirect, as well as social costs and benefits are evaluated. This way nett costs and benefits of tourism to the destination are evaluated.

Sometimes, evaluation can presume that a certain type of tourism provides maximal economic benefits, and in the same time can provide grate environmental and social costs. In that case during planning it is necessary to balance mentioned costs in order to provide optimal solution. For that reason it is important to prepare a number of feasibility studies. Preparing in the first place, market and financial feasibility and secondly, environmental and sociocultural feasibility.

The basic task of these researches is establishment of the rate of return on investment, so that the potential investor can compare the rates on alternative investments.

3.2. Multipliers and Input-Output model

Indirect economic effects of tourist expenditure can be investigated also by using multipliers and input-output analysis.

3.2.1. Multipliers analysis

Concept of multiplier functions on principle of purchase of direct suppliers from other firms, who themselves purchase further input. This way tourism connects different sectors. Together they contribute to government revenue and induce further economic activities. Tourist spending provokes a process of repeated rounds of purchases by supplying industries as well as other induced consumption.

After each round there are some leakages that reduce the consumption in the next round. They are: import, taxes, savings, government consumption and may or may not, personal consumption (wages, salaries and profit). There are many types of multipliers and every one of them has its special function: transactions (or sales), output, income, employment and government revenue multipliers.

More frequently used in researches are income and employment multipliers. Income multipliers show the increase of incomes brought about one unit \$ exchange in tourist expenditure.

Employment multipliers indicate the ratio of direct and secondary employment created by the same

additional spending, to direct employment alone.

There are a number of multipliers, and on this occasion we shall mention **Kaynes Multipliers Theory**. Theory provides the recording of the mutual dependance between tourism and the rest of economy on regional or national level. It starts from tourist expenditure to obtain the total income. The basic model includes:

K – the multiplier

C – the marginal propensity to consume

M – the marginal propensity to import

$$K = \frac{1}{1 - C + m}$$

or including **L** – imidiata leakage attribute to tourist spending not entering the economy

$$K = \frac{1 - L}{1 - C + m}$$

But, this model treats the whole economy, so we have to calculate this entire propensity to different sectors.

3.2.2. Input-Output Analysis

"Input-output analysis is a general equilibrium approach to examining the structure of an economy, its dependency and the economic impact of exogenous changes in final demand". (Fletcher in Witt and Moutinho, 1994)

This is a method of tabulating in matrix form sales and purchases, made by each sector of the economy compared with all other sectors. It started with input-output table focusing on the flows of transactions between the different productive sectors. The formula connects the equality in a way that all forms of final demand are presented by vector **Y**.

$X - AX = Y$ where **X** = a vector of the total sales of each sector

$(I - A) X = Y$ **Y** = a vector of final demand

$X = (I - A)^{-1} Y$ **A** = a matrix of the inter-industrial transactions

$\Delta X = (I - A)^{-1} \Delta Y$ **I** = an indentity matrix (1 in simple algebra)

3.3. EIA (Environmental Impact Assessment)

There are different methods that are used for EIA. The principal is that it is necessary to anticipate environmental consequences which will bring a new project. Before all, it is essential to make a check list of potential impacts which will be a base for producing evolution matrix on which basis the comparesments are done, produce a feasibility study

and implement in planning.

3.4. Smith's Typology of Tourism (Cooper, Fletcher, Gilbert and Wanhill, 1993)

What is the degree of tourist adaptability to local norms can be examined by using Smith's typology of tourism which is accepted in the academic world. Typical developing process on destination, starts from the phase "discover" an area, when the tourist is "explorer", and to "mass" tourism. In order to avoid the last phase which produces a lot of negativities for the hosts and tourists, it is needed to carry out experts' opinion for a long time.

4. COMPARATION AND CONTRASTING OF METHODOLOGIES

4.1. Cost-Benefit Analysis

As it can be seen from previous comments, by cost-benefit analysis one can observe all three impacts, economic, sociocultural and environmental. In order to make comparison, or to find similarities and differences by the use of this method on different impacts, we shall take an example of sociocultural programme for tourism in Zanzibar (Inskeep 1991). The task of this research is finding the solution for development of Zanzibar in the field of tourism by providing corresponding economic benefits and also preservation of cultural heritage together with protection of social balance.

Included in the plan are interesting sociocultural and environmental effects. This is because a large number of tourists have shown interest in history, society and culture of Zanzibar. In order to keep satisfactory relationship between tourists and residents, tourism is used as a technique of cultural conservation. Results achieved are in connection with following: Fortification of standard between culture and tourism in Zanzibar which will later serve as a parameter for recording of positive and negative cultural interactions. So, we can say like tourist expenditure serves as a base for measuring of economic impacts, in this case, by analysing sociocultural interactions we have a "set of standards" which are determined by the government. The difference is obvious, quantitative method is more relevant from the one that is by its nature more intangible. Further, saturation of economic and sociocultural effects can be seen on one of topics determined by the government and that is by informing tourists to memorate their visit to destination by purchasing local souvenirs, handicrafts and photographs. Standards set in this way not only provide benefit by educating tourists by means of learning about a new culture but reflecting the importance and consideration of their own culture and heritage, and at the same time provides economic benefit through tourist spending. Further,

they wish for their programmes of development to be public, to be closer to the local residents, in order to find in that, their own interest. Those are just some of the elements which serious consideration can bring longer good relations between hosts and tourists. Just like with the analysis of economic impacts by cost-benefit method the aim is to establish the rate of return on investment, so that the final effects of analysis in sociocultural approach is to preserve the culture, costumes and at the same time avoid the social conflicts.

So, from this it can be concluded that the cost-benefit method provides recording of direct as well as of indirect effects. Pure indirect effects of both costs and benefits are much bigger from direct ones and for that reason have greater impact on decision making policy.

With cost-benefit analysis, element "time" is very important, because it can happen that one investment is more appropriate in a short run and some other in a long term. In that situation cost-benefit method is sometimes a matter of personal judgement and that can be considered as its weakness.

4.2. Multipliers, Input-Output, Cost-Benefit, EIA and Smith's Typology of Tourism

4.2.1. Strengths and weaknesses of multipliers and input-output analysis

A) Strengths:

- this method is good for recordings of present economic performances and presenting short run economic effects of changes.
- it is very informative, for decision making, planning and development.
- it supports comparative methods, like cost-benefit analysis particularly for the economic sectors.
- input-output method is a very realistic one, provides information from different sectors. That way, for example, by projecting the increase of tourist expenditure, impacts on economy can be judged, and that is an important input for programming.
- it helps ministries of tourism to prove impacts of tourism on economy.
- the technique is suitable for measuring any form of export activity, including tourism.

B) Weaknesses:

- lack of multipliers results from the actual nature of tourism, that is a multiproduct industry and has its own impacts on a large number of sectors. Increase of demand should be settled from supply. However, in practice that is not always the case. If a supply can not correspond to the market demand, additional goods must be imported.
- all production factors are a concern of total economy. This is according to (Archer, 1977) a major criticism of the technique, as then it does not give a true measure of the long term benefits of tourism to

the economy. The model gives average values and we need marginal ones. If the difference between the average and margin value is less than 5%, it is acceptable

- with input-output analysis, the biggest problem is to provide a large number of valuable data. So, it is a very expensive method and takes a lot of time.

- assigning tourist expenditure to the appropriate sectors.

- the static nature of the model shows the structure of the economy only at the time of analysis, since all other additional tourist expenditure should produce the same effects on the economy like the previous one. Duration of the model is 3-5 years and if an economy that is a subject to changes is involved in that case one should be extra cautious. Dynamic model eliminates some of those negativities, but the problem is that it requires a larger number of data.

- by comparing multiplier values of different countries one should realise that different techniques have been used and so the results are different.

- employment multiplier can not be compared since the given indicators are in different currencies.

4.2.2. Comparison of other methods

However, unrealistic assumptions, insufficient data and weaknesses of the applied method can produce inadequate multiplier results, which can be fatal for the planning process. For that reason the structure of this technique is necessary together with other methods such as social cost-benefit analysis.

Comparing cost-benefit and multiplier analysis we can conclude that cost-benefit method has wide application of quantitative indicators for investment decision making on national level. But it can also be used for evaluation of environmental and sociocultural effects. It also provides "a clear decision-making criterion" (Fletcher in Witt and Moutinho, 1994). If the results do not correspond, criteria can be changed, an alternative can be used, while with input-output analysis "running on short time" limitations. Also, one of the advantages of cost-benefit method is the possibility of adjustment in the cost and benefit flows, without a possibility for price changes. Naturally, such information is always risky.

Input-output model can be used when we analyse Smith's Typology of Tourism, we should be aware that tourist development is a process which takes time. For it, like for EIA, constant monitoring is needed as well as a lot of time together with appropriate profile of experts, since a very important process is in question.

5. CONCLUSION

From the previously mentioned it is clear that economic impacts are mostly beneficial, the social impacts are mainly undesirable, and the environmental are mixed. For socio-cultural and environmental impacts, which are more intangible, research is often empirically based, but for economic, there are several methodologies. Synthesis of one and the others tourist impacts should provide understanding of the capacities of destination areas.

"Unfortunately, little has been done yet to devise measures of carrying capacity for tourism." (Mathieson and Wall, 1993)

The main aim of tourism planning is to provide meeting of tourists and hosts in a way for the first one to gain enjoyable and satisfying experiences and for the second one to have improved way of life.

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