

Tourism multiplier effect

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Abstract

Determination of the multiplier effect of tourism is a key element in the economic field. The multiplier measures the impact of extra expenditure introduced into an economy.

Keywords: tourism, multiplier effect, economy, region

Tourism not only creates jobs in the tertiary sector, ¹it also encourages growth in the primary and secondary sectors of industry. This is known as the multiplier effect which in its simplest form is how many times money spent by a tourist circulates through a country's economy. Money spent in a hotel helps to create jobs directly in the hotel, but it also creates jobs indirectly elsewhere in the economy. The hotel, for example, has to buy food from local farmers, who may spend some of this money on fertilizer or clothes. The demand for local products increases as tourists often buy souvenirs, which increases secondary employment. The multiplier effect continues until the money eventually 'leaks' from the economy through imports - the purchase of goods from other countries.

Multiplier effects² refer to an economic concept that was conceived in the nineteenth century and developed throughout the early period of the twentieth century, but not formalized until the work of John Maynard Keynes in the 1930s. The concept is now universally accepted amongst economists and applies to changes in exogenous demand for any industry's output, and is thus not solely related to tourism activity. Within the context of tourism multiplier effects are

¹ <http://geographyfieldwork.com/TouristMultiplier.htm>

² http://www.hotelmule.com/hospitality_travel_wiki/wiki/Multiplier%20effect

those economic impacts brought about by a change in the level or pattern of tourism expenditure. The term 'multiplier' is derived from the fact that the value of expenditure is multiplied by some estimated factor in order to determine the total economic impact. The multiplier effect can be estimated by using ratios that reflect either the direct plus indirect effects or the direct plus indirect plus induced economic effects of tourism spending.

“Multiplier effects”³ are often cited to capture secondary effects of tourism spending and show the wide range of sectors in a community that may benefit from tourism.

The multiplier⁴ measures the impact of extra expenditure introduced into an economy. It is therefore concerned with the marginal rather than average changes. In the case of tourism this extra expenditure in an area can take many forms, including the following:

- spending on goods and services by tourists visiting the area;
- investment by external sources;
- government (domestic or foreign) spending (e.g. domestic government spending on infrastructure in a region or foreign government aid);
- exports of goods stimulated by tourism.

A country's trade balance allows precise knowledge of imports and exports of a country, by linking inputs to outputs in a given period of time. "Invisible trade" constitutes the so – called "invisible balance sheet" which is part of the balance of payments.

International tourism impacts on the "invisible trade balance" and "balance of payments".⁵ Proceeds from the "invisible transactions, and payments in their account balance determines the final balance appreciably their balance of payments in a country. The balance of payments directly affects GNP as well. To illustrate this we use the equation:

$$Y = C + I + G + (E - H)$$

unde:

³ Stynes D., *Economic Impacts of Tourism*,

<https://www.msu.edu/course/prt/840/econimpact/pdf/ecimpvol1.pdf>

⁴ Horwath Tourism & Leisure Consulting, *Tourism Multipliers Explained*, Published in Conjunction with the World Tourism Organisation, November 1981, pag. 3, <http://www.horwathhtl.co.za/includes/newsroom/Tourism%20Multipliers.pdf>

⁵ Snak O., *Economia și organizarea turismului*, Editura Sport Turism, București, 1976, pag. 64

Y - Gross National Product;
C - cost of consumer goods;
I - investment expenditures for goods;
G - government spending;
E - exports;
H – imports.

If tourism imports⁶ are greater than exports, balance account is negative and GDP (*Y*) will also be lower, where exports are travel expenses incurred by foreign tourists in our country.

The overall balance of payments⁷ reflects the claims and debts of a country in relation with foreign countries, and its impact on tourism can be played through the foreign trade balance account, which according to its nature - positive or negative - can compensate, reduce or worsen a balance of deficit payments.

The summary of invisible operations influence⁸ on the total balance of current account balance is:

- reduce the asset balance of trade balance;
- compensating, with different weights, the trade balance of liabilities;
- increases the active balance of trade balance;
- covering the balance of trade balance liabilities, sometimes with surplus;
- in some cases increases the liability.

Tourism is an incentive for infrastructure investment, and in small tourism related businesses, and the initial investment in tourism sector induces important investments in third parties, including investment in hotels, restaurants, shopping areas, ports, airports.

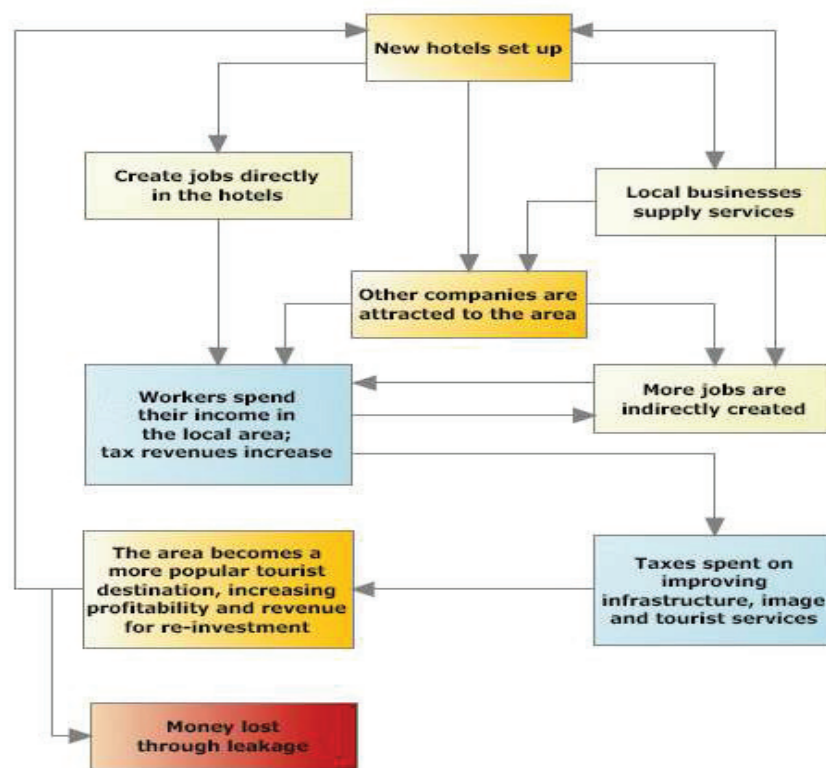
Oscar Snak also describes the multiplier effect of tourism, based on the theory of "efficiency" or "multiplier". Applied to tourism, the tourism multiplier effect indicates the influence of national income generated by the influence of the tourism expenditure on the activity of the productive sectors. Almost all sectors of the economy benefit from the tourism incomes.

⁶ Cosmescu I., *Turismul*, Editura Economica, București 1999, pag. 55

⁷ Minciu R., *Economia turismului*, Ed. Uranus, București, 2001, pag. 32

⁸ Snak O., Baron P., Neașu N., *Economia turismului*, Ed. Expert, București, 2001, pag. 67

The multiplier effect is manifested in two forms: the multiplier effect of earnings from tourism, and in terms of the tourism monetary expenditure effect, considering creating new income in the national economy and the multiplier effect of foreign investment. A primary expense made by a tourist, for example, in a hotel, will be used for new investments (equipment, facilities) to pay staff, to pay for goods or services or payment of debts. In turn the recipients will use the money to cover the personal needs or to pay their own debts, so spending the money several times, by allocating it between different sectors of national economy, and thus generating new revenue each time.



Source: <http://geographyfieldwork.com/TouristMultiplier.htm>

From an economic perspective, revenues from foreign visitors were exports to countries (areas) who receive tourist flows. Because money coming from outside is circulating in the economy of the places visited by tourists, and are spent and spent again several times until they disappear from the economic circuit, Keynes called the exports of

tourism associated with the consumption of material goods and the domestic spending "injection" for the economy. But if that money is immobilized in household savings or used to pay duty, import, the money lose its incentive value, and is named by Keynes "leakage" to other destinations. The greater the volume of these leaks, the smaller is the multiplier effect of tourism. Keynes argues that economic growth is possible when "injections" are greater than "leakage."

The multiplier effect of tourism can be shown by the formula:

$$K = A \times \frac{1}{(1 - B \times C)}$$

where:

A - is the proportion of expenditure remaining after deduction of leakage in the area looked to other areas;

B - is the proportion of income spent on local residents to purchase goods and services produced within the area considered;

C - is the proportion of residents spending changes in local revenues after deduction of leakage.

American scientists Robert W. McIntosh and Charles R. Goeldner use the following formula which shows the operating mechanism of the multiplier effect:

$$\text{Tourism multiplier} = \frac{1}{(1 - M \times P \times C)}$$

Tourism multiplier is the absolute elasticity coefficient (Δa) of the tourist consumption.

Another formula used to quantify the multiplier effect of tourism is:

$$K = (\text{direct impact} + \text{indirect impact} + \text{induced impact}) / \text{direct impact}^9$$

Tourism multiplier research suffers the following limitations:¹⁰

1. Data Deficiency

Multiplier analysis requires a detailed database. In many cases researchers generate their own data. However, this takes considerable time and money. In general terms the smaller the research area the less likely it is to have data available in a suitable format. This situation is compounded by the fact that tourism is a multi-product industry,

⁹ Snak O., Baron P., Neacșu N., *Economia turismului*, Ed. Expert, București, 2001, pag. 22

¹⁰ Horwath Tourism & Leisure Consulting, *Tourism Multipliers Explained*, Published in Conjunction with the World Tourism Organisation, November 1981, pag. 7-9, <http://www.horwathhtl.co.za/includes/newsroom/Tourism%20Multipliers.pdf>

covering a broad spread of economic sectors. Any economic data, which is readily available, does not usually analyse the economy in sufficient detail.

2. Restrictive Assumptions and Limitations

Many of the weaknesses and limitations of multiplier analysis result from restrictive basic assumptions, which are made in constructing the models. The more sophisticated models eliminate or reduce some of these weaknesses.

3. Existence of Supply Constraints

Most multiplier studies assume that supply is “elastic” in all sectors of the economy, i.e. that the increase in output required to meet the increased demand resulting from tourism will be met by purchases from the same sources. This may not be possible because of technical constraints.

4. Use of Homogeneous Consumption Functions

Most multiplier models assume that as household incomes rise these incomes will be spent on the same products as previously. Clearly in practice it is likely that such rises in incomes will result in changes in the type of goods purchased.

5. Repercussive Feedback Mechanism

Few multiplier models take into account the effects of increased incomes outside the study area which result from exports to the study area. This may in turn generate tourism and expenditure in the study area.

6. Speed of Transactions within the Economy

Static multiplier models take no account of the length of time the multiplier effect takes to work its way through the economy.

7. Sensitivity of Coefficients

In constructing a multiplier model a balance has to be reached on its sensitivity. It must be robust enough to withstand substantial changes in the value of coefficients (such as the propensity to consume), yet sensitive enough to react to changes in the pattern of tourist expenditure.

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