

Measuring Tourism's Impact

The most comprehensive impact assessment ever undertaken for tourism operations



Summary output of TIMM Analysis

TIMM can be used to value not only the business financial performance, but also the wider social, tax, economic and environmental implications. Figure 1 provides a simplified analysis of the results of the TIMM analysis for the two options. The inner circle shows the financial performance in terms of total upfront capital costs and ongoing expenditure. Each bar represents a net present value (NPV) for the hotel. The different impacts can be compared and aggregated, and the trade-offs between the two options identified and explored.

Financial performance

- Incorporating the latest environmental technology in Option A would involve higher construction costs than in Option B. However, the savings on energy, water and waste management bills would lead to lower operating costs.
- The training programmes associated with Option A will incur additional costs. However it is assumed they will also lead to improved skills in, and engagement with, the local community.
- As a result of both of these effects, in our hypothetical example both options have the same NPV over the life of the hotel, but with different cash flow profiles.

Environmental

- Both options would lead to environmental impacts because they involve the conversion of a Greenfield site into a hotel. As both options involve the same size hotel, the land use impacts associated with the construction of the hotels will be the same.
- The environmental technologies incorporated in Option A include a range of technologies which significantly reduce the amount of electricity and natural gas purchased by the hotel, which will in turn lead to lower quantities of GHG and other air emissions released.
- Option A also involves an innovative water management system that recycles as much water as possible within the hotel to reduce the impacts of water use.
- In the operation phase, Option A will involve purchasing as much domestically grown fresh produce as possible. This will increase the demand on the island's agricultural sector and will have higher environmental impacts, especially land use, than Option B where the majority of fresh produce is imported.
- Option B, however, relies on importing and therefore transporting fresh produce by sea and air resulting in higher associated GHG emissions.
- Option A has a more effective waste management and segregation process and has established relationships with a waste recycling operation, which means a higher proportion of the hotel's waste is recycled.

Trade-off: Option A reduces the overall impact on the environment, but requires a change in land use to grow local produce that the local community might not welcome.

Economic

- The more expensive technologies involved in the operation phase, Option A lead to higher investment impacts.
- Also Option A will be seen as a country building a green brand and therefore a positive impact.

Social

- Option A involves training of local community to improve skills, boosting both livelihoods and education impacts.
- The employment and greater involvement of the local population will also lead to improved livelihoods and community empowerment.
- Greater community cohesion will be achieved with a hotel that demonstrates it cares about the environment and community that operates in.
- Both hotels will have a negative visual amenity impact as they are being built on a previously unused Greenfield site.

Trade-off: The community relations with Option A are better as the operator is more aware of and addressing the hotel's impact, but at the cost of a higher payroll and investment.

Summary

In this hypothetical example, in the absence of total impact analysis, the decision would have been made largely using financial analysis, focusing in on the willingness to pay higher investment costs. TIMM brings a new perspective. Using TIMM to put a value on the qualitative overlays, the total impact of each decision is calculated and the many trade-offs between Options A and B can be identified in a holistic manner.

- Option A offers higher profits, but with higher upfront costs, payroll, and requires more significant change to local land use.
- Option B requires lower upfront costs but results in a negative impact on the environment and local community.

TIMM may therefore be used to manage the impacts of tourism operations.

Our groundbreaking pilot study revealed the impact of tourism on a destination's environment, economy and community



Tourism can have a profound impact on holiday destinations - from the economic benefits of jobs and tax revenues, to positive and negative impacts on the environment and local communities. Whilst much work has been done to consider these different influences in isolation, very little is known about the overall impact tourism is having on destinations.

This is an important gap in knowledge which affects the industry's ability to manage its impact for the benefit of the destination - to protect the environment, benefit local people, and improve the customer experience.

Our research, with TUI and PwC, is the first ever study to measure the overall impact of a large tour operator in a mainstream holiday destination. The study has provided unparalleled insights into ways of measuring impacts and has highlighted how valuable the results of such an undertaking are to understand and manage tourism activities for the benefit of everyone involved - destinations, travel companies and tourists.

Our approach

The pilot study used TIMM (Total Impact Measurement and Management), an impact measurement and valuation framework developed by PwC.

Four key categories of impact were assessed:

- Economic, including employment
- Tax
- Environmental, including emissions to air, land and water and the use of natural resources.
- Social, including livelihoods, skills and cultural heritage.

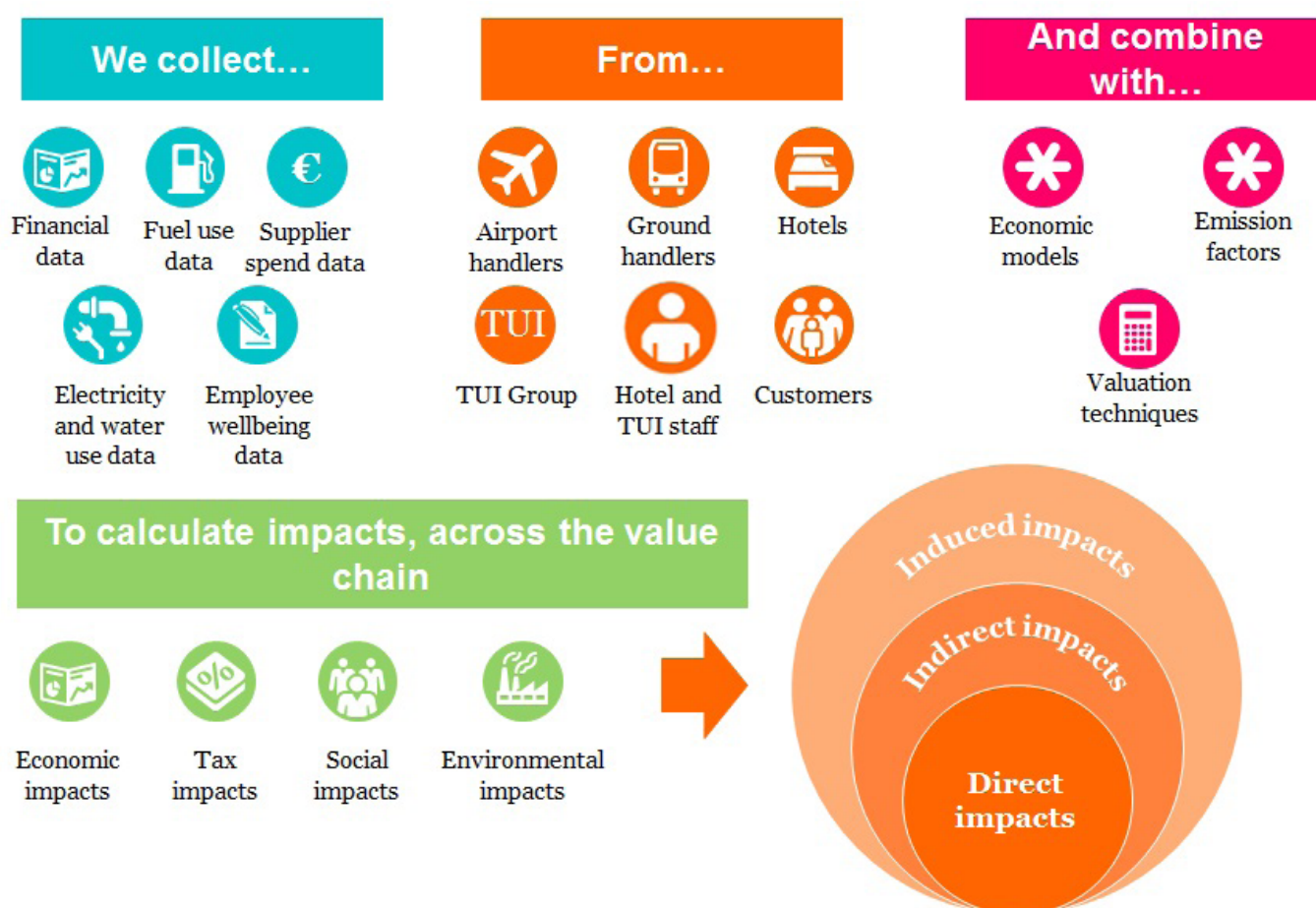
TIMM involves estimating the value of each impact, at the direct, indirect and induced level, so that they can be compared to each other. This enables decision makers to assess the total impact and to compare alternative strategies, investment choices and operating plans.

Cyprus was chosen for the study because it is a mature mainstream market where the impacts of tourism are widespread.



What we did

The study comprised a snapshot of the impacts of TUI Group's activities in eight hotels, covering 60,000 customers over one year, excluding travel to and from Cyprus.



"We are delighted to have been able to support the Travel Foundation and the TUI Group in applying our Open Sourced TIMM framework to this project. Whilst we have applied the framework to many different industry sectors, this is the first time we have applied it to the Travel and Tourism sector. The pilot study has proved two key things: Firstly, what we all intuitively thought – that tourism can be a force for good in a destination; and secondly, and perhaps more importantly, an in-depth analytical tool like TIMM can help companies develop strategies to continually improve that impact year on year."

Malcolm Preston, Global Sustainability Leader at PwC

The Benefits

This pilot study has demonstrated that it is possible to measure and value the wider impacts of tourism in a more holistic way.

Benefits for tourism stakeholders

This type of research has many benefits for tourism stakeholders including:

- To inform sustainability strategies, target setting and decision making for businesses and destination governments.
- To inform the work of standard setters in the tourism sector,

such as the GSTC and international policy making and funding institutions (including the World Bank and UNEP)

- To help travel businesses to communicate more effectively with their stakeholders, including destination governments, about their role in the local community and economy.
- To help destination governments to identify tourist spending patterns and the potential for increasing tourist spend in the local economy.



Benefits for TUI Group

The results of this study have given TUI Group a unique understanding of their impact in Cyprus which they aim to investigate further and integrate into business operations including to:

- Develop indicators to measure performance of suppliers spanning not only environmental but also socioeconomic factors.
- Analyse their impact in other destinations and in other product areas.
- Influence the future direction of their practical destination projects.



Results of the Impact Measurement

The positive economic and tax benefits were by far the greatest impact - amounting to €84 per guest per night - far exceeding the negative environmental (-€4) and social (-€0.2) costs. However, this is a one-year (2013) snapshot and does not take account of the construction of the hotels. In addition, many environmental and social impacts will accumulate over a longer timeframe.

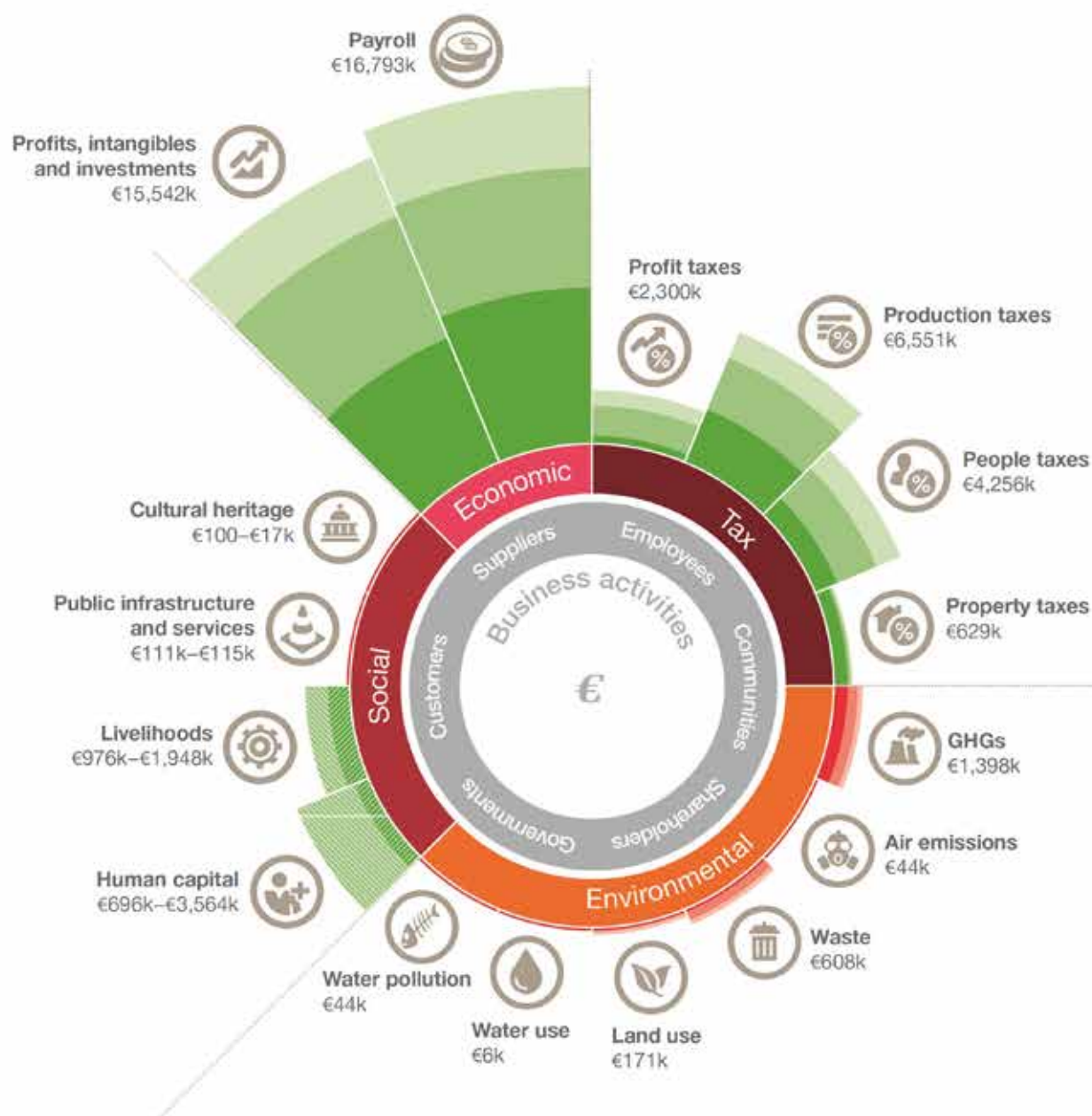
Greenhouse gases (GHG) were the most significant environmental cost - although this represents

less than 0.01% of total GHG emissions in Cyprus. GHG impact more than doubles if flights to/from Cyprus are included.

The most significant social benefit identified across all of the social impact areas was that associated with 'on the job' experience, with an upper estimate of €6.2 per guest night. This highlights the tourism sector's significant role in developing skills in the Cypriot workforce, which is important in the context of the Cypriot economy where unemployment

has increased in recent years, particularly among young people.

The study also shows that a significant amount of the total impact of tourism comes "indirectly" from supply chain activities and tourism spend. For example, supply chains and other services used by customers were found to generate almost 14 times as much waste as the hotels themselves (1.8kg of rubbish per customer per night from hotels compared with 25kg from the supply chain).



Key

Negative impact direct	Positive impact direct	Negative impact minimum	Positive impact minimum
Negative impact indirect	Positive impact indirect	Negative impact maximum	Positive impact maximum
Negative impact induced	Positive impact induced		

In numbers

€13.8m

TOTAL TAX IMPACT

€32.3m

TOTAL ECONOMIC
IMPACT

€84

POSITIVE ECONOMIC AND
TAX BENEFITS PER GUEST
PER NIGHT

8

TUI HOTELS



€6.20

'ON THE JOB' EXPERIENCE
(PER GUEST NIGHT) THE
MOST SIGNIFICANT SOCIAL
BENEFIT IDENTIFIED

60,000

CUSTOMERS

1 YEAR



Wider adoption

We are keen to see destination governments, tourism businesses, NGOs and standard setters working together to:

- Test impact measurement approaches in other contexts, for example for other types of tourism and in different destinations.
- Develop and share the best ways to manage impact
- Integrate impact measurement into sustainable destination management strategies, tourism operation standards and sector targets.

To read the full report, please visit
www.thetravelfoundation.org.uk/impact

To find out how the Travel Foundation can help you
with research, policy development or embedding
sustainable practice, contact us at

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