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EVIDENCE OF THE REBOUND EFFECT ON CLASSIC AND SMART TOURISM

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Abstract

Tourism has become an important industry in recent decades, bringing considerable economic benefits. However, tourism also brings different types of negative impacts, manifested by increasing energy consumption and environmental negative impact. With the development of tourism, heavy tourist traffic, air pollution and waste of resources cause significant damage to the environment and natural resources. At the same time, energy consumption will in turn increase to meet the various needs of tourists and their experiences because the diversification of tourists' activities increases in equal measure with the development of technology. In many respects, smart tourism can be seen as a logical progression from traditional tourism and, more recently, e-tourism, as the foundations for innovation and technological orientation of industry and consumers have been established in advance with the widespread adoption of information technologies and communications in tourism. The paper aims to highlight the manifestation of the impact of tourism on energy consumption.

Keywords: *Rebound Effect, Smart Tourism, Energy Consumption.*

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1. INTRODUCTION

This developing trajectory continued by adopting social networks on a large scale, while also understanding that plenty users are “mobile”, smart tourism is, most definitely, still developing and still gaining new levels in tourism systems. The industry’s structure in which new levels of intelligence are obtained, created, changed and consumed are fundamentally different.

Smart tourism consists of more components which are sustained by TIC (Figure 1). One way, it means smart destinations, which are special cases of smart cities: applying the principles of intelligent cities towards urban areas or rural areas and not only their residents, but also tourist, and their efforts to support mobility, resources’ availability and life quality and sustainability.

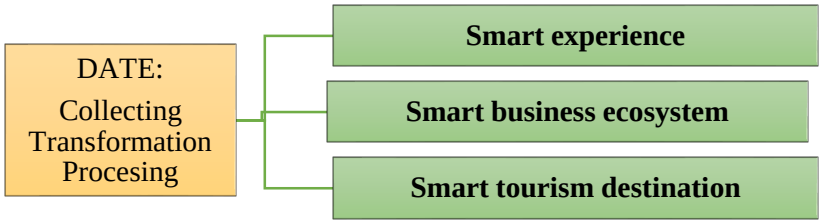

Figure 1. The components of smart tourism

Source: Gretzel. U., et al., 2015” Smart Tourism: foundations and developments”

Smart tourism destination is defined as an innovative tourism location, built on a new generation technology infrastructure which guarantees durable development of touristic locations, accessible for everyone, which facilitates both visitors interaction and life quality of its inhabitants (Lopez de Avila, A., 2015).

To better describe smart tourism, in is necessary to combine all parts interested through all technology platforms, including tourism destinations, which offer tourists an unique experience and which allow real time information exchange. Tourists are an essential part of smart tourism, but tourist destinations need to actively take part to this change and put more effort into creating and efficient and creative experience**.**

The main component of smart experience is based on the tourism experience mediated by technology and on improving it through personalizing it, acknowledging its context and monitoring it in real time. In 2015, Neuhofer identified real time info syncronising as

determining factors towards intelligent tourism. Intelligent tourism experience is significantly rich. Tourists are active participants towards its creation. They not only consume it, but also create it or improve the overall experience through, posting pictures on instagram with different hashtags, adding value to their experience.

The third component, an smart business ecosystem. It refers to the complex business ecosystem which creates and supports the tourism resources exchange and creation of tourism experience. The main component of intelligent tourism has been described as dynamically interconnected parts, digitalization and organizational agility. An unique component is the fact that it includes the collaboration between public and private, which results in the fact that governments become more open and technology became the main focus on larger scale. Intelligent tourism also recognizes that consumers can both create and offer value, while also assuming governing roles. Intelligent tourism has three levels, an intelligent level which collects data, and intelligent level which focuses on interconnectivity and and intelligent level which analyses, visualize and integrates data (Buhalis D., Amaranggana, A., 2014).

Based on all these, intelligent tourism is defined as tourism sustained by integrated efforts towards a collected and aggregated destination of derived data through physical infrastructure, social connection, government sources and human mind, combined with advanced technology utilization for transforming these data in experiences and valuable business proposals with an emphasis on efficiency, durability and a great experience**.**

2. THE IMPACT OF TOURISM ACTIVITY TOWARDS ENERGY CONSUMPTION

Energy is a main component of actual society, while its current energetic neccesities are strongly correlated with its problem such as growing population, economic growth and technological progress. (Matias, 2018).

Despite recent technological progress, there has been a growing energy demand in the past years, which might compromise some assumed arrangements to reduce gas emissions in atmosphere, because electric energy production is still very dependant on utilising IPCC fossils (2015). Therefore, and according to IEA (2017), reducing energy consume is a priority towards sutainability, buildings representing 30-45% of energy consumed in the majority of countries (Gul, 2015).

In these past decades, toursim has become an important industry and brought huge economical benefits to tourism destiantions. On the other had, tourism also has its negative impact, especially through CO2 (Tang and Abosedra, 2014). While tourism highly developed,

intense traffic, air pollution and natural resource waste cause serious injury to the environment and natural resources (Katircioglu, 2014; Zhang and Gao, 2016). Long distance travels in between destinations cause signifiant damage to the environment (Dubois and Ceron, 2006; Liu, 2011). Also, while activity diversification grows within tourits, also energy consumption grows, which causes massive energy consumption and environmental damage.

Becoming more preocupied with persevering the environment and climatic change, researchers said tourism and environment should be managed in an integrated and interdiscplinary way (Janusz and Bajdor, 2013). Managing and tourism development necessitates efficitent policies of managing both energy and the environment. Measuring consumption is useful to understand tourism and the environment in a quantitavie and objective way (Becken andSimmons, 2002). If tourism energy consumption can be measured, the negative impact on the environment can be easily controlled, so tourism destinations can be developed in a durable way (Gössling, 2005). Therefore, an investigation in between tourism energy consumption, durable tourism and destination development will be of interest not only of the whole tourism industry, but also for all decision parties.

Tourism is a dinamic and complex process which includes destination mobility, which includes multiple interested parts and managing destinations (Mill and Morrison, 2002; Bornhorst, 2010). Therefore, energy consumption must be analysed from different angles. Energy consumption studies have been reaslies through a less systematic way, which deems for future investigation.

The conceptual framework of this study is built on the framework of tourism (Leiper, N., 1979) and stakeholder theory (Saito and Ruhanen, 2017) (Figure 2).

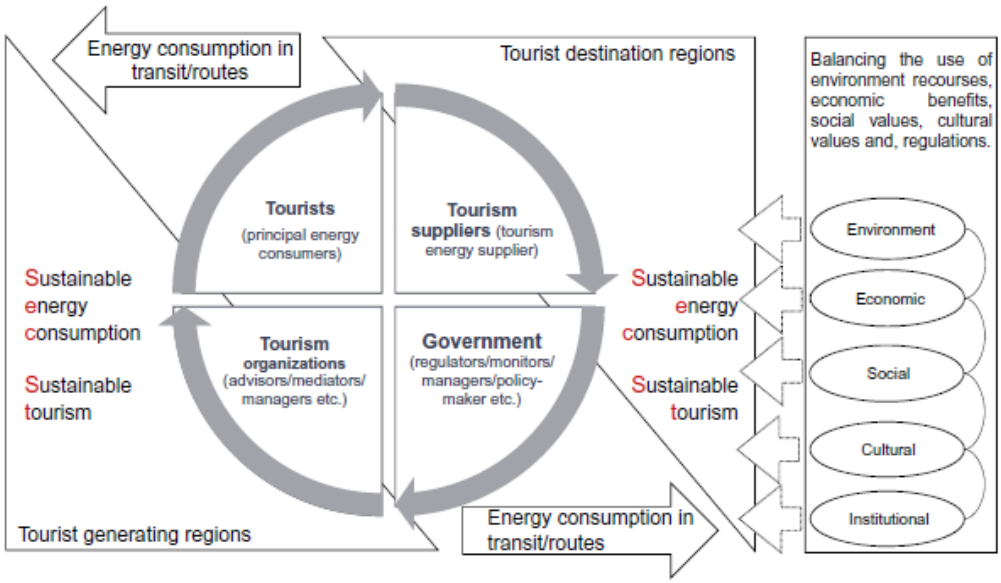

Figure 2. The conceptual framework of energy consumption

Source: Leiper, N., (1979)" The framework of tourism: towards a definition of tourism, tourist, and the tourist industry."

3. CONCLUSIONS

First of all, the tourism industry can be seen as a process which spreads across transit routes and regions (Leiper, 1979). Transport is one of its most important sectors, which enables going from one place to another (Palhares, 2003; Van Truong and Shimizu, 2017). A great energy percentage is spent on touristic routes, and choosing the best route is directly relating to energy spending.

Secondly, some energy consumption is not necessarily due to tourists. More from different other sources (Becken and Simmons, 2002). Different parts play different roles, and are not directly responsible to durable tourism.

Conceptually, there are four main parts to tourism: tourits, tourism providers, organisations and governments. Tourists are the main consumers of transit routes and tourist destinations. They take part in different activities and look for activities and experiences which determine energy consumption, not only within the destination, but all the way towards their trip.

The third characteristic refers to trying to explain energy consumption based on building a sustainable tourism(Høyer, 2000). Sustainability has already been recognized as an essential factor towards defining a successful tourism (Hunter, 1997; Cernat and Gourdon, 2012). Planning touristic transport and utilizing energy should match sustainable tourism development

which balance environmental resources, economic benefits, social values, cultural values and regulations (Janusz and Bajdor, 2013). We can never talk about energyconsumption without taking in consideration a sustainable tourism.

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