High Speed Rail and the tourism market: Evidence from the Madrid case study

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ABSTRACT

Marketing decisions and strategic planning of tourism provisions require improving the knowledge of factors affecting tourism demand, as well as making better forecasts of tourism flows in the short and long-term. In this respect, approaching how holidaymakers select their holiday destinations and investigating which factors determine their choices emerge as a key challenge. The aim of this paper is to analyze the role of High Speed Rail systems on destination choice, specifically on urban tourism destinations. To that end, a quantitative analysis is carried out through logistic regression models aimed at analyzing how different explanatory variables affect tourists’ choice of a destination. A Revealed Preference survey was conducted in June 2013 in Madrid, where tourists were interviewed close to the most attractive tourist sites. Preliminary results show that the Spanish High Speed Rail system seems to have a significant effect on the tourists’ choice to visit other cities close to Madrid, but the choice of Madrid as a tourist destination is not influenced by the presence of High Speed Rail. Indeed other factors play a significant role.

1. Introduced

Tourism competitiveness is an important economic indicator since it strengthens two-way trade and promotes export income. According to the World Economic Forum (2013), Switzerland, Germany and Austria lead the world in terms of travel and tourism competitiveness, with Spain, the United Kingdom, the United States, France, Canada, Sweden and Singapore completing the top 10.

As pointed out by Della Corte et al. (2010), tourist destinations are a complex integrated product, defined by the “six As”: Access, representing the accessibility to a location; Attractions, which are the local attractive factors; Accommodation, referring to hotel structures; Amenities, representing tourist services; Assemblage, indicating the activity of tour operators; and Ancillary services, that are represented by agencies, offering services like tours and local institutes and supporting organizations.

In this paper we study the influence that a specific type of Access, the one provided by High Speed Rail (HSR), has to boost tourism. We make the hypothesis that HSR can have an impact on tourists’ choice of the place where to spend their holidays. This hypothesis is based on the fact that HSR has distinctive advantages compared to other transportation modes in terms of travel time, comfort, safety and reliability.

Determining the impact of infrastructure on tourism is crucial for governments intending to promote this service. The coordination among the different stakeholders is crucial for making a certain destination competitive compared to others. For this reason, infrastructure has to be coordinated with other aspects such as destination promotion, image, coordination of local stakeholders and marketing on local tourism and community.

On the other hand, getting to know the needs of tourist is becoming increasingly complex since they have more information, more needs and they are more focused on the quality–price relationship. Moreover information technologies are shaking up the decision making processes because they have opened the access to more demand targets and have allowed new forms of web-specialized organizations, like internet providers, which have become market leaders. In addition, globalization is another important feature, making competition higher since each single firm has to compete with many others at international level.

There exists a significant literature investigating the determinants of tourism flows. Travel prices, exchange rates and tourism infrastructure are among the most prominent determinants in the existing empirical literature. A number of authors have cited the infrastructure base of a country as a potential determinant of the attractiveness of a tourism destination. Infrastructure represents an integral part of the tourism package; for example, “road
infrastructure enhances accessibility of tourists to different parts of the destination country while sound airport infrastructure ensures that tourists experience a comfortable transition from the plane into the borders of the destination country and vice versa” (Seetanah et al., 2011). Kaul (1985) also recognizes the importance transport as an essential component of successful tourism development in that it induces the creation of new attractions and the growth of existing ones.

The objective of this paper is to get to know the influence of HSR services on the choice of a tourist destination, as well as on the probability to visit other cities for the case of Madrid (Spain). To that end, we developed a Revealed Preference survey to identify the factors influencing the probability of revisiting a tourist destination, as well as the impact of HSR services on this choice.

The paper is organized as follows. Following this introduction, in Section 2 we report an overview of previous contributions on the link between transport–HSR in particular– and the tourism market. In Section 3 we explain the specific situation of HSR and tourism for the case study of Spain. Section 4 defines the methodology and describes the survey conducted to obtain the dataset for the case study of Madrid. In Section 5 we describe the results. In Section 6 we conclude and outline future research topics.

2. Transport and tourism: an overview

The relationship between tourism and transport has been widely addressed in the literature, specifically in the last decade. Some authors (Seetanah and Khadaroo, 2009; Khadaroo and Seetanah, 2008) have pointed out the contribution of transport infrastructure to the attractiveness of tourism destinations. Additional aspects such as environmental impacts of tourism transport (Peeters et al., 2007) or potential benefits of integrating transport and tourism policies (Scuttari et al., 2013) have also been discussed. In particular, it is commonly mentioned that tourism and air transport are intrinsically linked (Bieger and Wittmer, 2006), so a large literature concerning this topic has been developed. Dobruszkies and Mondou (2013) and Warnock-Smith and Morrell (2008) have analyzed the extent to which the liberalization of the airline market has led to significant changes in both air services and tourism growth. Rey et al. (2011) and Davison and Ryley (2010) estimated the impact of low-cost airlines activity on tourism, as well as price sensitivity to flying by population segment. Other studies have focused on issues such as airlines corporate strategies (O’Connell and Warnock-Smith, 2012) and carbon pricing on aviation (Duval, 2013).

The relationship between road transport and tourism has received little attention. The existing literature (Agullo et al., 2012; Martin-Cejas and Sanchez, 2010) is mainly focused on evaluating road transport usage in tourist islands and determining tourism-associated externalities. Furthermore, Jou et al. (2012) examined the behavior of tourists following the opening of a new freeway. Other authors have addressed some aspects regarding tourism and urban public transport, such as the design of tourism bus networks (Lumsdom, 2006), key factors for successful tourism public transport provision (Gronau and Kagermeier, 2007) and the effect of tourism demand on public transport services (Albalate and Bel, 2010).

Finally, there is still limited research concerning rail transport and tourism demand. A transport innovation such as a HSR service modifies the link between tourists and accessibility (Masson and Petiot, 2009; Delaplace, 2012) because a decrease of traveling time can be analyzed as a decrease of distance. As travel time is one of the items of total costs assumed by tourists, HSR can therefore decrease generalized transport costs. Consequently, HSR can affect the utility of tourists and the competition between destinations (Masson and Petiot, 2009), since the market area can be enlarged.

As pointed out by Wang et al. (2012), some cities can be reinforced by a new HSR line while others could be disadvantaged. For the case of China, Chen and Haynes (2012) concluded that those provinces served by HSR services “are likely to have approximate 20% additional numbers of foreign arrivals and 25% greater tourism revenues than provinces without such systems". According to these authors, HSR will have an effect on strengthening competitiveness in tourism.

Based on a literature review and on interviews, Bazin et al. (2011) developed a qualitative analysis to assess the impact of HSR on urban and business tourism on French cities close to Paris. They showed that this kind of tourism may be fostered by HSR for at least three reasons. First, urban tourism is generally short-stay tourism (around two or three days) especially during weekends. Consequently, using HSR avoids the fatigue of driving, congestion and parking difficulties. Second, in some countries and during certain times of the year, especially with some promotional offers, it can be cheaper than road trips when travelling alone or in couple. Third, HSR can be more comfortable and even save time when compared to air transportation, particularly when the rail station is located in the center of the city.

There are also several contributions in the literature concerning the competition of HSR systems with other transport modes, such as car (Cascetta et al., 2011) and air transportation (Pagliara et al., 2012), one specifically for the Madrid–Barcelona corridor.

Another interesting aspect for tourism is to study tourists’ intention to revisit a specific destination. In this respect, we can hypothesize that the increase of accessibility achieved by HSR can foster the tourists’ intention to revisit a city. Very limited contributions are present in the literature concerning this point. The paper by Seddighi and Theorarous (2002), which analyzes the probability of revisiting Cyprus in terms of socio-demographic and destination characteristics, can be considered one of the most important papers in this field. They developed a micro-economic approach based on observations of holidaymakers. This approach allows the examination of the characteristics influencing individual travel behavior, and provides a conceptual framework to understand the nature, form and character of the holiday decision-making processes of individuals. Furthermore, the research conducted by Barros and Assaf (2012) analyzed the different covariates of revisiting Lisbon by using a mixed logit model and a mixed logit with bounded parameters model. They concluded that the probability of revisiting Lisbon “increases significantly with accommodation range, events, food quality, expected weather, beach, overall quality, nightlife, reputation, and safety”. The authors also showed that the overall quality and reputation variables, which are not statistically significant in the logit model, become statistically significant in the mixed logit model. Finally, Delaplace et al. (2014) investigated the factors influencing destination choice for tourism purposes and the role of HSR systems in affecting this choice to revisit Rome and Paris.

3. The tourism market and the High Speed Rail system in Spain

This section presents the main aspects concerning the relationship between HSR and tourism for the case study of Spain. It is divided into two subsections. In the first one the specific features of the tourism market in Spain described, while in the second subsection the development and characteristics of HSR transport in this country are reported.