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**HIGH SPEED RAILWAY SYSTEM AND THE TOURISM MARKET: BETWEEN ACCESSIBILITY, IMAGE AND
COORDINATION TOOL**

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Abstract

The aim of this paper is to propose a state-of-the-art about the interactions between High-Speed Railway systems and the tourism market. Because of changes in accessibility, provided to the territories supplied by these systems, the actors expect a dynamic economy, in general, and of the tourism in particular. Although expectations are important in France as abroad, a literature review of studies carried out *ex-post* shows that the effects are not systematic, since they depend on the implementation of the High-Speed Railway service and on the characteristics of the territories. It can be noted that, if the high speed rail allows, in some cases, the increase in the number of tourists, a decrease of the stay may follow. To understand the role of High Speed Railway, it is necessary to take into account the changes of accessibility, but also its effects on the image of the destination and on the coordination of the stakeholders.

Key words: Tourism, High Speed Rail, cities

JEL : L83, R40, R50, R 58

Transport is intrinsically linked to tourism behavior since, by definition, the tourist is a traveller. Nevertheless, where the transportation is considered as an important factor in the development of tourism, the analysis of its role is often underestimated. "*Little serious research has been undertaken into the significance of transport as a factor in destination development*" (Prideaux, 2000 : 54).

The aim of this paper is to propose a state-of-the-art about the interaction between High-Speed Railway (HSR) systems and the tourism market. This question arises because there are many HSR networks and many ongoing projects whose economic justification is based on the benefits deriving from them. In November 2013, there were in the world 21.472 km of HSR (i.e., whose speed is greater than 250 km / h), 13964 km were under construction and 16347 km were scheduled by 2025. In 2025, 51784 km should be in service in the world (UIC 2013). A recent literature review (Bazin et al., 2011a) highlights the different possible benefits of these lines, and their extremely disputed existence. There are no systematic effects associated with HSR lines (Offner and Crews, 1991 Vickerman, 1997; Bazin et al, 2006; Blanquart and Delaplace, 2009). The automatic nature of the effects of transport infrastructures on the economic development commonly known as "structuring effect" is a myth (Offner, 1993). However, following the changes of accessibility of the served territories, the actors involved are expecting economic dynamism in general and tourism in particular. "Accessibility to infrastructure is (...) seen as an initial condition for development by a large number of political actors, this indicating a widespread confusion between accessibility and attractiveness" (Berion, Joignaux and Langumier, 2007: 655).

After noting the importance of the expectations associated with HSR in terms of tourism development in the *ex-ante* literature (1), we present the main results of the *ex-post* literature about the connection between HSR and tourism, highlighting the negative effects that may be associated with them (2). We show that HSR allows, in some cases, an increase of tourism, due to the increase of accessibility, as well as the image attributed to the destination and the coordination of the actors involved in the destination (3).

1. Expectations associated with HSR in terms of tourism development

Among the expectations associated with HSR, those relating to the development of urban and business tourism are various (1.1). These expectations depend on the stakeholders' concerns. Nevertheless some *ex-ante* studies tend to generalize the positive impacts on all served cities (1.2).

1.1 Expectations associated with HSR in terms of urban and business tourism

The expectations in the served cities by HSR in France and abroad are numerous (Bazin et al., 2011a). The expected improvements in the accessibility of a destination would lead to an increase of the transport demand. A revitalization of urban and business tourism is expected (Delaplace, Perrin, 2013, Bazin et al, 2010. Kamel and Matthewman, 2008 Masson and Petiot, 2009) associated with an increase in tourism (Mannone, 1995, Sands, 1993).

Urban tourism is characterized by visiting museums, historical monuments, gastronomic activities in a given country, or shopping activities in large cities with famous shops. In France, the tourist characteristics vary by city, but overall it is a short-stay-tourist (two or three days) and often weekend, mainly by singles or couples or families with children (ODIT, 2008) belonging to different professions and socioeconomics categories with a variable income.

Business tourism (i.e. meetings, congresses, exhibitions (MICE)), is characterized by individual movements and / or collective decided by companies or administrations with the objective of reducing travel time. According to the French Club of Tourism Business (CFTAR), the preferred sites correspond to 78 % in city centers and are mainly selected by three criteria: geographical location, accessibility and accommodation facilities. Professionals and high-income socio-economic categories with a relatively sensitivity to price but very high sensitivity to the quality and speed of service practice this tourism. Like other forms of tourism, this type of tourism is characterized by a tendency to shorten the average length of stay. These types of tourism would benefit from HSR services because they facilitate travel.

Indeed, if the station is located in the city centre, places of urban tourism are more easily accessible without loss of time for tourists. A HSR service allows moving faster on the spot, without fatigue, avoiding congestion and increasing difficulties to the heart of the city (existing when travelling by car), and even more so when the station is located in the city. It also allows foreign tourists visiting major cities to provide a secondary destination that can be visited during the day with a round trip by train.

1.2 Expectations resulting from the concerns of the actors

In France, these expectations appear in the reports of public agencies. Due to the commissioning of the Eastern European High Speed Line (HSL) in France in 2007, it was assumed that the attractiveness of the Lorraine region would have been increased. "A new customer (tourist) may be referred: from Ile-de-France first, then European, from other parts of province last" (ISIS 2004: 49). Similarly, in 2005, the Economic and Social Council of the Alsace region stated that "at a time when tourism is stagnant, the arrival of the HSR is a real opportunity to renew the tourist supply, for example by promoting the incoming from the Ile de France customers" (CESA 2005: 8). The same expectations were present in Franche-Comté in Besançon considered World Heritage Site by Unesco (Villes et régions européennes de la grande vitesse, 2009).

These expectations are always present in other projects: "South-west regions enjoy the benefits of the arrival of the HSR: (...) development of tourism, especially "short stay" travels" (RFF, 2010). This is particularly the case of cities that will be served by the TGV South-west including Bordeaux and Toulouse (Setec, 2005). In Lower Normandy (France), almost all the contributions made by the actors during the public debate of the New Paris-Normandie line (LNPN), evoke a tourism development (Guinguand, 2012). Lower-Normandy being a favorite spot by some Parisians, the reinforced accessibility in Paris induced by the implementation of this new line will enhance tourist attractions. This is the case of Caen where the LNPN line should optimize the potential seaside tourism, the Greater Caen heritage, its coastline and develop short stays and cultural or professional events (such as congresses) (Communauté d'agglomération de Caen la Mer, 2011). Concerning the new Paris Orléans Clermont-Ferrand Lyon (POCL), it is expected that the city of Roanne that could be served by this HSR, sees its future service as a tool for the development of its gastronomic events (Ville de Roanne, 2011). The same is expected by HSL Arcomed, which should lengthen the duration of the tourist season and increase the pre-existing amenity value as at Toulon to Genoa or Barcelona (Arcomed, Etude d'impact, 2008: 19).

Elsewhere in Europe, expectations were equally strong. Thus, seeking to learn from the French experience (with the example of Lyon in particular) and from Japan, Rietveld et al (2001) believed that the city of Amsterdam has much to gain in terms of tourism by the future line HSL-South.

In Britain, in Kent in the late 80s, tourism was considered the greatest opportunity for the commissioning of the Channel Tunnel (Gibb 1986: 368).

In Spain, Feliu (2012) points out that tourism business have seen by the arrival of the new service in Lleida, an opportunity to promote tourism in the Pyrenees so that the station was called "Lleida-Pirineus."

In the United States, the same tourist expectations for LGV projects are present. Nash (2010) argues that stations served by the service will benefit leisure travel. Todorovitch et al. (2011: 17) indicate "Just as airports bring visitors and their spending power into the local economy, high-speed rail stations attract new tourists and business travelers who might not have made the trip otherwise".

Murakami and Cervero (2012: 10) offer similar expectations for Kyoto, Japan and San Diego, California "Our research also suggests that a HSR system might be able to enhance the economic advantages of tourist-oriented clusters in relatively large cities (e.g., Kyoto in the western side of Japan, Anaheim and San Diego in Southern California)".

The impact study of the HSR service in Ohio highlights the expected effects in terms of tourism development in a state with many amenities: "For international visitors high-speed rail will provide accessibility to the major attractions without the necessity to drive a car" (Transportation Economics & Management Systems, 2007: 130).

In Australia, the HS train between Melbourne and Canberra could bring a lot of new tourists in the towns of Shepparton, Albury-Wodonga and WaggaWagga. "*The flow on benefits to tourism, sports and arts are likely to be high.*"(Edwards, 2012: 19).

In general, and in many places in the world where HSR projects exist, the analysis shows the idea that from the commissioning of a HS line it should benefit the tourism sector « *Besides business journeys, tourism is the first sector to show an immediate effect following the inauguration of an HST line. Indeed, the number of tourists in cities linked to the network tends to increase thanks to this alternative mode of transport*” (Albalade, Bel, 2010: 25). The best tourist traffic would increase turnover in the sector and direct taxes on tourism spending. Seasonality of tourism could also be less marked and the rate of filling more balanced accommodation throughout the year.

However, these analyzes and studies *ex-ante*, inspired mostly by *ex-post* studies conducted in cities previously served by TGV, have a tendency to generalize some positive impacts identified in certain types of cities, with specific strengths in tourism without always taking into account the possible ambivalent effects.

2. Ex-Post, a potential dynamism despite some disappointed expectations and ambivalent impacts

Ex-post dynamism associated with a TGV service is sometimes observed in the short term and in some conditions, but expectations are not always met (2.1) in particular due to a decrease in length of stay (2.2).

2.1 A possible dynamic in terms of attendance...

The results of studies, conducted over 30 years in France, are very different as shown in Table 1.

Table 1: TGV Line and evolution of tourism in France

Line and year of service	Observations derived
LGV Paris-Lyon 1981	No impact on the activities of winter sports except change of profiles (Bonnafous, 1987)
	Development of exhibitions and fairs nation-wide (Mannone 1995: 280) in Lyon. Growth in the number of nights in small cities around Lyon (Beaune or Montbard).
	Decrease in the number of nights (Dijon, Valence, neighborhoods around the station Lyon-Perrache).
	No development of business tourism in Dijon (Mannone, 1995). Business development of the convention center in Beaune but 10 years after the arrival of the TGV with the creation of the Palais des Congrès in 1991 (Mannone, 1995).
LGV Atlantique 1989-1990	Business development of conference in Chambéry as in Grenoble, primarily due to the existence of centers performing globally recognized research able to generate such an activity (Mannone, 1995).
	Growth in the number of conferences at Le Mans, from 15 events Congresses in 1987 to 30 in 1993.
	In 1993, 70% of the centre's clients were from the Île-de-France and 70% of attendees came by TGV (Amiard, 1997). Development of business tourism in Tours (10 Congresses in 1984, 22 in 1985, 120 in 1996 and 134 (Faye, 1998) also related to the opening of the Congress center.
LGV Nord 1993	Increased 43% of hotel rooms in the center of Nantes between 1988 and 1993 but occupancy rates are not up to the expectations (Vickerman & Ulid, 2006).
	Growth in the number of hotels and three and four stars hotel rooms, respectively from 16 to 27 and 1300 to 2100 in Lille. Growth in visitors from 34,000 in 1990 to 149,000 in 1995 and 517,000 in 2003

	and the number of foreign visitors increased from 26% in 1990 to 36% in 2003 (CSEF, 2005)
LGV Méditerranée 2001	Growth in the number of days Congress welcomed from 109,021 in 1996 to 294,124 in 2009 (Ville de Marseille, 2011) No fulfillment of all expectations in terms of tourism in Avignon (Feliu, 2012).
LGV Est-européenne 2007	Growth of 7% in the number of French nights from 2007 to 2008 in Strasbourg (Tourisme-Alsace, 2008). 12% in growth of number of "business" events, 11% in national or international events, 23% in number of days of seminars and 40% in sales "meetings" between June 2005 - 2006 and June-December 2007 in Strasbourg (Tourisme-Alsace, 2008). Overnight stays are also growing in Nancy and Metz. Decrease of hotel occupancy rates in Metz and Nancy, compared to 2006 (-4.7 points for Metz, Nancy -3 points). Two years later, only Strasbourg seems to show dynamism (INSEE Lorraine, 2009). Promotion of business tourism in Reims: beyond expectations. Growth in congress from 16 in 2005 (4 international) to 19 in 2007 (2 international) to 27 in 2010 (9 international) (AUDRR, 2012).

Source: the authors

In addition, the analysis conducted by Bazinand al. (2013) in some small and medium-sized cities in the North, Atlantic and Eastern Europe served by the LGV shows that, despite an improvement in the accessibility even in cities with a tourist heritage, the increase in tourists due to the TGV is minimal. For cities of intermediate size, positive effects can be registered on condition that they are pre-equipped by tourist amenities, corresponding to a "basket of goods" for the tourist to diversify its visits (Bazinand al, to be published). City size is a factor to take into account for the connection between TGV service and dynamism of tourism (Delaplace, 2012b).

In terms of urban tourism, and business tourism, no general trend seems to appear in France. amenities and overall accessibility of cities are the most important factors in the development of business tourism.

Abroad, the effects are equally well mixed. In Spain, as in France, Urena and al. (2009) argue that large intermediate cities served by HSR as Lille, Zaragoza or even more Cordoba would see a growth in urban and business tourism. Similarly Todorovitch and al. (2011) reported that tourism grew 15% annually in Lleida and business conventions 20%. However, they emphasize that this was not the case of Tarragona, because of the remoteness of the station relative to the most attractive coastal areas.

The study of DB International GmbH (2011) on pairs of relatively similar cities served and not served by HS services in France, Germany and Spain, shows the inability to generalize the dynamic evolution of the nights in the served territories. In Spain, it is also shown that the dynamism of the nights is strongly correlated to all cities regardless of whether they are or are not crossed by HSR. The study led by SEEDA (2008) on thirteen cities in Germany, Holland, Britain and France shows that few cities seem to have experienced a revitalization of tourism.

An increase of tourist movements is however mentioned in Taiwan (Cheng, 2009) or in China, where some cities have benefited from a HSR service (Wang and al., 2012). Provinces served in China "are likely to have approximate 20 percent additional numbers of foreign arrivals and 25 percent greater tourism revenues than provinces without such systems" (Chen, Haynes, 2012 :1). In Japan, Okabe (1979, cited by Rietveld and al 2001. 9) describes an increase in tourist visits in cities served by HSR, while it decreased in the not served cities.

Here it can be seen the extreme heterogeneity of situations, often referring to specific cases, which underlines their necessary contextualization (Delaplace, 2012a). TGV and effects cannot be understood independently by socio-economic characteristics of the areas they serve, in tourism as in the other contexts (Bazinand al., 2013c).

Moreover, if the number of tourists might increase, the duration of their stay, in some cases, can be reduced.

2.2. Sometimes a decrease of the length stay is registered.

It is likely to occur a reduction in length of stay and in number of nights. Indeed, as the club TGV Rhin-Rhone emphasizes (2010:2) "the offer of TGV allows to come and go during the day, while visitors currently remain on the site one or two nights". Survey data between 1980-1985 on the Paris-Lyon Line started in 1981 (Bonnafous, 1987) show a decrease in the length of stay in Dijon, Lyon and Valence Perrache while this is not the case of Beaune and Montbard. In fact, in Dijon, this service has helped to reduce the proportion of business travelers who spend the night there. The occupation rate decreased from 66% to 58% in 1994 thanks to a significant increase in the number of rooms.

In Lyon, the increased accessibility has also induced a reduction of the length of stay, which moved from 2.3 to 1.7 days in 1993 (Mannone 1995: 280).

At Le Mans, the arrival of the service has contributed to reduce the duration of events for residents and conversely to promote non-residential ones, i.e. fewer events over several days but more events in one day. In this city, the average length of stay increased from 2 to 3 days to 1.5 days a few years after the arrival of TGV service. The events had an average duration of one day earlier than generally encountered in France by the national Congress in the mid-1990s (1.5 days versus 2.5 days nationally) (Amiard, 1997). This decrease in the duration of the events is due to the TGV, but also to the strategy taken by the Palace of Culture and Congress, which focused on daily events to bypass the limited capacity of three-star hotels in the city. Similarly, according to INSEE analysis, between 2007 and 2008, the duration of tourist accommodation declined in almost all areas and the same in Reims in 2007 (INSEE Lorraine, 2009). Thus in the area of Reims Champagne, if the number of overnights grew between 2006 and 2007 (from 903 467 to 955 195), from the date of commissioning of the LGV, it has reduced from 2008 (931,958) to descend below the starting level in 2009 (897 205) (INSEE CA, CA ORT, CDT Marne, 2010). Equally, the average tenure of the convention center in Reims has decreased from 3.81 days in 2005 to 2.68 in 2010 (AUDRR, 2012). This reduction in length of stay also follows the strategies of business companies, in order to reduce budgets, moving towards daily congress.

In other countries, the same phenomena are recorded. In Japan, Okabe (1979, cited by Rietveld and al 2001. 9) shows a reduction in overnight stays including the cities served. In China, the HSR service from Hangzhou would likely impact negatively on the hotel industry so far that visiting Hangzhou and return in Shanghai is possible in the day (Chen, 2013).

To conclude on this point, if the number of visitors making urban tourism can grow with the arrival of HSR, a significant reduction in the length of stay can lead to an overall reduction in spending by tourists (Levinson, 2012), this trend reveals contradictory effects of HSR on tourism (Albaladejo, 2010).

The issue is to identify the mechanisms by which a dynamic tourism can be associated with HSR service.

3 HSR trains and tourism: improving accessibility, renewed image and coordination tool

If a TGV service can play a role in boosting tourism, it is because it is likely to affect the behavior of tourists and their choice of the destination. This may be because of the provided services making cities more accessible (3.1), but also because it is used in terms of signal to improve the image of cities (3.2). But we would like to underline that it is also because in some cases, it is used as a coordination tool in the destination (3.3).

3.1 Accessibility and services associated with TGV routes, among other elements of boosting tourism

The short-term stays by the urban or business tourist can benefit from a TGV service since it improves the accessibility of the destination. This is the case when the distance between the origin and destination of tourists is relatively low. In addition, a TGV shift is cheaper and faster than traveling by car. When traveling alone or in couples, the service can lead to a reduction in the cost of transport. In addition, in the case of

business tourists, sensitivity to quality of service (on-board services, frequency, regular interval train, etc.) and reduced journey times are very important.

Therefore, tourism dynamic can be achieved with a good service for a stay of a weekend with regard to the urban tourism, and a week regarding the business one. This improved accessibility could then expand the market area of the city in terms of tourism and / or influence the choice of destination.

According to gravity models (see Crampon, 1966 the first study of this type), the number of visitors that a destination can attract, depends on the size of the population in the area of the target market and its location, the number of tourists is inversely proportional to the increase of distance. An innovation of service such as the TGV (Delaplace, 2012b) modifies the link between tourists and the distance as the reduction of travel time can be seen as a decrease in the distance. From an economic point of view, a TGV service can reduce the generalized cost of transport. Therefore, the behavior of the choice of the tourists and the choice of destination changes (Masson, Petiot, 2009): the area of the market and competition can be extended. TGV service may also play a role in the choice of destination, especially in the probability of return to the destination, i.e. becoming a "repeater".

In their model of choice of destination, Woodside and Lysonski (1989) consider many interacting elements, such as variables for the traveller, marketing variables, awareness of the destination, the preferences of travelers in terms of destination and situational variables (Woodside and Lysonski 1989: 9). If the transport is intrinsically linked to tourism, its role is not explained. In particular, few studies investigate the role of the TGV service in the choice of destination and in the probability of return. A survey was carried on in 2012 in Paris in a few attractions of the capital and at the Gare de Lyon, to identify whether the TGV service could influence the choice of destination for tourists and the probability of return. Here Delaplace and al. (2014) show that the rail service affects 49% of respondents; that is the third most important element after the heritage and historical culture and architecture. About the probability of returning to Paris for tourism, the modeling results show that the variable TGV is very significant. The presence of the TGV influence the choice of young tourists, because it allows to go faster, to reduce travel time, because the stations are easy to access and because young people have a good knowledge of promotional offers to come back (Delaplace and al., 2014). On the contrary, the analysis led by Valeri and al. (2012) in Rome reports to different results: HSR service does not affect the choice of revisiting Rome, but influences the probability of visiting other cities connected by HSR. The analysis conducted in Madrid (Pagliara and al. 2014) shows the same results.

HSR service does not automatically play a role on the choice of destination even if it improves accessibility. However, it can improve tourism through image effects wherever there are tourist amenities located nearby and / or easily accessible.

3.2 HSR services, travel services and improvement in the image of the city

If tourism is a resource that can be activated by a TGV service (Feliu, 2012), so that it can be operational, it is necessary that the city has some specific amenities (Bazin and al., 2010, 2011b, 1995 Manonne Masson, Petiot, 2009).

If that is the case, a TGV service can improve the image of the city and its attractiveness by asserting its identity and, thereby, enabling it to develop its tourist attractions.

Apart from the direct use of the service in terms of accessibility, there is an image effect that can be seen as an additional characteristic to rail services that corresponds to an incremental innovation (Delaplace, 2012b). This characteristic, described as semiotic, is a positive factor both for stakeholders of the served territories and for tourist. As a clothing brand adds value to a suit, equally the TGV services provide benefit to the served areas.

This image enhancement is extensively discussed in the literature (see Bazin and al. 2011a, for a review on the subject) and it is seen as a factor whose tourism can benefit. (Bazin and al. 2013c, Mignerey, 2013, Setec Organization, 2005, SEEDA, 2008).

This image effect is then amplified by important communication policies of the cities during the commissioning of the TGV service producing a localization effect. In many French cities, the role of the TGV service was highlighted (Carrouet, 2013, regarding the cities served by the LGV Rhin-Rhône or ISIS 2004 for

the East European LGV (study of the city of Metz, Nancy, Epinal, Thionville)). These policies are obviously more limited in small towns and the effects of notoriety vanish with increasing routes and cities served over time. This image effect is also amplified due to urban policies launched at the arrival of TGV service achieving a renewal of the surrounding neighborhoods to the station, the creation of shopping centers, an increase in the real estate and / or residential and a re-organization of the public transport. This image effect is also associated with a "club" policy for the cities served in France, which is not only symbolic. In fact, the SNCF, at the time of commissioning of the last routes, created TGV club. This is the case of the 320 club, the Friends club of the TGV East-European organization whose mission is to "*implement local actions and / or regional (...) able to promote the development of the project in the territory of East European TGV (...), to contribute to its success and maximize socio-economic benefits for the community*". Similarly in 2009, the SNCF TGV Rhin-Rhône created a club. In these clubs join many public stakeholders at different scales (cities, provinces or regions), as well as private ones. Although it is difficult to measure this image effect, some trends are evident. In Reims, for example, recently, if tourists coming from the Ile de France region continue to increase, the data collected from the tourist office at the station show that the share of tourists travelling by TGV has decreased. Thus, the destination Reims is now one of the possible destinations, among the cities served by TGV service, worthy of a communication policy to encourage the renewal of the cultural supply. Paris Operators (France tour as the Bull) sell the destination of Reims to Parisians and foreign tourists by the commissioning of the TGV service, offering them high quality products and knowledge related to the tasting of Champagne. Local operators have recently launched new tourism products, such as visits to vineyards with a four-wheel drive vehicle. But tourists do not all come by the TGV service.

However, these data show that European tourists (especially the British and the Spanish) will use train more. Chinese and Americans visiting to Paris also arrive in the city for a day trip with TGV.

The development of tourism is also influenced by the collective strategies of the stakeholders in the area.

3.3 The TGV service, a coordination tool, for the purpose of tourism development

A TGV service can also be a coordination tool. In fact, stakeholders try to identify the benefits that can be gained in terms of tourism and minimize the negative effects that may occur because of the service. Thus, the *studies, the diagnosis*, whose aim is to anticipate possible changes in area are generally carried out *a priori* or *a posteriori* (see Chevalier 1990, Amiard, 1997, Bazin et al, 2006 for France). These diagnoses may change the expectations of the public actors, investing in service, concerning the future of their territory. Local actors may also go into partnership. This is the case when a communication plan is established collectively by different actors (city development agency, department, region, tourist offices, etc..) to promote the destination. The objective is to avoid conflicts in terms of communication that can blur the image of the city and thus make it more readable.

Collective appropriation can also take place through the production of packages incorporating TGV, accommodation, visits and / or entertainment and events, tickets etc.. Tourist offices in different territories may close such circuits encouraging tourists to visit other places on a larger territory (Bazin and al., 2011b). It is essential to combine the resources available in the served territory. It may be working on new products by diversifying the basket of territorialized goods and services (Pecqueur, 2001) that the tourist can build on site. It can be done by building a kind of thread allowing tourists to create their own "basket of territorialized goods and services" (Pecqueur, 2003). It can be also developing tours during the night to encourage the tourist to stay the night. Lastly, it can be done by diversifying the cultural supply (Club TGV Rhin-Rhône, 2010).

These actions require strong coordination between

- the various stakeholders within the same city: public, private actors and non-profit organizations concerning by the accommodation, entertainment and culture industries,
- the HSR operator and other transport operators,
- as well as the population, essential part, involved into the "development tourism" of the city (Equipe MIT, 2000).

The challenge is to retain the tourist and / or get him/her back.

This is the case today, for example in Nantes (a large city in the west part of France), where all stakeholders (public, private, business tourism, tourism Leisure and SNCF (Bazin and al. 2013b) are working together. There is also a collective appropriation to articulate tourism and transport at the heart of the city. Thus the "Voyage à Nantes" which is an annual event begins at Montparnasse station in Paris.

In terms of articulation of transport networks, from the station, the coordination between actors is also important so that the time saved in the train ride is not lost on arrival.

The development of tourism in served destinations is finally conditioned by the strategy of the railway operator. It can foster a dynamic tourism especially in the short term through commercial actions (promotional tickets, etc.). For example, at the time of commissioning of the LGV East-European, the railway operator in France, SNCF, sold tickets at a reduced price, which has led to the development of tourism in the cities served the eastern HSL. Similarly, willingness to provide additional offers during special events in the city is important. It can then direct tourists to some cities. For instance, during the Christmas markets, SNCF mostly sold Strasbourg as a destination. In the same way, in Lille at the large market, the capacity of certain TGV between Paris and Lille increased (Delaplace 2012a).

Coordination within the destination is so fundamental.

Conclusion

This state-of-the-art shows that the HSR routes may, in some cases, contribute to the development of tourism since tourism is based on intrinsically mobility behavior. Speed, safety and comfort of movement also impact on the choice of destination. The arrival of a HSR service in cities generates expectations and high hopes. However, the concrete analysis of its role is not yet demonstrated. Many expectations are not met and if a HSR service allows getting faster, it allows coming back quickly, minimizing the economic impact. If the connection between HSR service and tourism is now deeply investigated, the results of studies are often controversial. A generalized analysis of the role of this service in the development of tourism must be built. This can be done by carrying out surveys in the served cities to identify if the HSR service is a key element in the choice of the destination or not.

Some have been made in big cities (Paris, Roma, Madrid), in two theme Parks (Disneyland and Futuroscope in France) but we need to obtain more information concerning medium sized cities in different countries. The question is to know if the HSR is really more important in France due to its anchorage in the habits of the French (Delaplace and al. 2014) or if other reasons are present.

References

- AECOM (2011) High Speed Rail Study – Phase 1. Report for Department of Infrastructure and Transport July
- ARCOMED (2008), Etude d'impact sur les effets socio-économiques et réseaux d'un axe ferroviaire haute qualité / haute capacité sur l'arc méditerranéen - Les effets attendus de la liaison à grande vitesse ARCOMED
- ALBALATE, Daniel; Germà BEL (2010) "High-Speed Rail: Lessons for Policy Makers from Experiences Abroad" Research Institute of Applied Economics Working Paper /03, 34
- Agence d'Urbanisme Région de Reims (AUDRR) (2012) TGV Est Approche des impacts socio- économiques sur Reims et sa région. Paroles d'acteurs. Mai [www.audrr.fr/centre_ressources/publication/paroles-d-acteurs-tgv-est.html]
- AMIARD, Dominique (1997), Le tourisme d'affaire et de Congrès dans l'agglomération mancelle. In CHEVALIER, Jean (sous la direction de), Le Mans 6 ans après l'arrivée du TGV, groupe de recherche en géographie sociale, ESO – Espaces géographiques et Sociétés, Université du Maine, Le Mans.
- BAZIN, Sylvie; Christophe BECKERICH, Corinne BLANQUART ; Marie DELAPLACE Ludwine VANDENBOSSCHE (2011a) « Grande vitesse ferroviaire et développement économique local : une revue de la littérature ». Recherche, Transports et Sécurité. 27-106:215-238.
- BAZIN, Sylvie; Christophe BECKERICH, Marie DELAPLACE (2011b) High Speed Railway, Service Innovations and Urban and Business Tourisms Development, Chapter 4 In SARMENTO Manuela, & Alvaro MATIAS

Economics and Management of Tourism: Trends and Recent Developments. CollecçaoManuais, UniversidadeLuisiadaEditora, Lisboa, Portugal.

BAZIN, Sylvie; Christophe BECKERICH, Marie DELAPLACE (2013) « Desserte TGV et villes petites et moyennes, Une illustration par le cas du tourisme à Arras, Auray, Charleville-Mézières et Saverne », Les Cahiers Scientifiques du Transport, 63 :33-62

BAZIN, Sylvie; Christophe BECKERICH, Marie DELAPLACE (to bepublished) Valorisation touristique du patrimoine et dessertes TGV dans les villes intermédiaires à moins d'1h30 de Paris : les cas de Reims, Metz, Le Mans et Tours. Revue d'économie régionale et urbaine.

BAZIN, Sylvie; Christophe BECKERICH, Corinne BLANQUART ; Marie DELAPLACE (2013c) Les enjeux et opportunités des dessertes ferroviaires à grande vitesse en matière de développement local et de développement durable, rapport final, Contrat PREDIT, financement ADEME, mai, 186p.

BAZIN, Sylvie; Christophe BECKERICH, Marie DELAPLACE (2010), « Grande vitesse, activation des ressources spécifiques et développement du tourisme urbain : le cas de l'agglomération rémoise », Belgeo, 1-2 : 65-78

BAZIN, Sylvie; Christophe BECKERICH, Marie DELAPLACE; Sophie MASSON (2006), « L'arrivée de la LGV en Champagne-Ardenne et la nécessaire réorganisation des rapports de proximité », Les Cahiers Scientifiques du transport », 49 : 51-76

BERION, Pascal ; Guy JOIGNAUX, Jean-François LANGUMIER (2007) « L'évaluation socio-économique des infrastructures de transport : enrichir les approches du développement territorial ». Revue d'Economie Régionale et Urbaine, n°4: 651-676

BLANQUART, Corinne ; Marie DELAPLACE (2009) « Innovation relationnelles nouvelles offres de service et valorisation des nouvelles infrastructures de transport; Le cas de d'une plateforme multimodale et d'une desserte TGV ». Les Cahiers scientifiques du Transport. 56:63-86.

BONNAFOUS, Alain (1987) "The regional impact of the TGV" Transportation. 14-2:127-137.

CARROUET, Guillaume (2013) Du TGV Rhin-Rhône au territoire Rhin-Rhône : réticularité, mobilité et territorialité dans un espace intermédiaire. Thèse en géographie et Aménagement, de l'Université de Bourgogne, 518 p.

CES Alsace (2005) La stratégie régionale du tourisme en Alsace, Avis du 30 septembre 2005.

CHEN, Zhenhua; Kingsley HAYNES (2012) Tourism Industry and High Speed Rail, Is There a Linkage: Evidence from China's High Speed Rail Development. ASRDLF 2012 conference special session on High Speed Rail, Tourism and Territories, 9th-11th July, Belfort, France.

CHEN, Xueming (2013) "Assessing the Impacts of High Speed Rail Development in China's Yangtze River Delta" Megaregion, Journal of Transportation Technologies, 3: 113-122

CHENG, Yung-Hsiang (2009) High-speed rail in Taiwan: New experience and issues for future development, Transport policy vol. 17, n°2: 51-63

CHEVALIER jean (coordination) (1990) Le Mans à l'arrivée du TGV Atlantique. DATAR, DTT, OEST, Paris, 166 p.

CLUB TGV RHIN-RHONE (2010) « Ensemble, réussissons l'arrivée du TGV Rhin-Rhône », Le bulletin de liaison des membres du Club TGV Rhin-Rhône, n° 3

Communauté d'agglomération de Caen La mer (2011). La LNPN : une priorité pour renforcer l'accessibilité et le rayonnement métropolitain de Caen la mer. LNPN Débat Public, Cahier d'acteur n°44, 4p.

CRAMPON, L.J; (1966) A New Technique to AnalyzeTouristMarkets. Journal of Marketing. 30-2:27-31.

CSEF (2005) La gare TGV : quels impacts sur l'emploi à Liège ? Compte-rendu d'une table ronde organisée par le CSEF de Liège, http://csefliège.org/Analyse_du_marche_de_l_emploi_et_de_la_formation/Synthese%20TGV.pdf

DB International GmbH (2011) High Speed Rail as a tool for regional development; In-depth Study, 2011-08-08

DELAPLACE Marie, Francesca PAGLIARA, Julie PERRIN, Samuel MERMET (2014) "Can High Speed Rail foster the choice of destination for tourism purpose?". EWGT2013 – 16th Meeting of the EURO Working Group on Transportation,Procedia - Social and Behavioral Sciences, 111: 166 – 175

- DELAPLACE, Marie; Julie PERRIN (2013) « Multiplication des dessertes TGV et Tourisimes urbains et d'affaires, Regards croisés sur la Province et l'Île de France », Recherche Transport et Sécurité, Vol. 29 :177-191
- DELAPLACE, Marie (2012a) « Pourquoi les « effets » TGV sont-ils différents selon les territoires ? L'hétérogénéité au cœur du triptyque « Innovations, Territoires et Stratégies ». Recherche Transports et Sécurité. 28:290-302.
- DELAPLACE, Marie (2012b) « TGV, développement local et taille des villes ; Une analyse en termes d'innovation de services », Revue d'économie régionale et urbaine, 2: 265-292
- EDWARDS, Naomi. (2012) High Speed Rail benefits that add up, report for the Australian Greens
- Equipe MIT (2000) « La mise en tourisme des lieux: un outil de diagnostic », Mappemonde, 57, 1: 1-6
- FAYE M (1998) Tours à la conquête du tourisme d'affaires. *Noréis* 178:293-300
- FELIU J. (2012) High-Speed Rail in European Medium-Sized Cities: Stakeholders and Urban Development, *Journal of urban planning and development* december 138: 293-302.
- GIBB, R. A, 1986, The impact of the Channel Tunnel rail link on South East England, *The geographical journal*, vol. 152, n°3
- GUINGUAND Cécile. (2012) La Ligne Nouvelle Paris Normandie, Quelles stratégies d'acteurs sur le territoire de la Basse-Normandie ? Institut Français d'urbanisme, Université de Paris-Est Marne-la-Vallée, Mémoire de Master 1, 39 p + annexes.
- INSEE Lorraine (2009) La ligne à Grande Vitesse Est-européenne : une évaluation de l'impact sur le tourisme. INSEE Lorraine. 163, 6p.
- INSEE CA ORT CA CDT Marne (2010) Données de fréquentation en hôtellerie dans la zone Reims Champagne en 2009, Transmis par l'office de tourisme de Reims
- ISIS (2004) Analyse de l'impact du TGV-Est sur les agglomérations de Metz, Nancy, Epinal et Thionville. Rapports de phase 2 et 3 pour ADIELOR, 58p et, 81p.
- KAMEL, Karima; Richard, MATTHEWMAN (2008), The non-transport impacts of High-Speed Trains on regional economic development : a review of the literature, *Locate in Kent*, <http://www.locateinkent.com/images/assets/High%20Speed%20Train%20Report%202008.pdf>
- LEVINSON David M. (2012) Accessibility impacts of high-speed rail, *Journal of Transport Geography*, 22: 288–291
- MANNONNE, Valérie (1995) L'impact régional du TGV sud-est, Thèse pour l'obtention du doctorat de géographie, 2 tomes, Université de Provence Aix-Marseille I
- MASSON, Sophie; Romain, PETIOT (2009) "Can the high speed rail reinforce tourism attractiveness ? The case of the high speed rail between Perpignan (France) and Barcelona (Spain)", *Technovation*, Vol. 29, n°9: 611-617
- MIGNEREY, Pascal (2013). Les effets territoriaux de la grande vitesse, La Documentation Française, 96 p.
- MURAKAMI, Jin; Robert, CERVERO (2012) "High-Speed Rail and Economic Development: Business Agglomerations and Policy Implications" UC Berkeley University of California Transportation Center UCTC-FR-2012-10 May
- NASH Chris (2010), Environmental and Other Co-benefits of Developing a High Speed Rail System in California: A Prospective Vision 2010-2050, Symposium, December 2-3, Enhancing the Cost Benefit Analysis of High Speed Rail Institute for Transport Studies, University of Leeds Working paper
- ODIT France (2008) Enquêtes sur sites auprès des visiteurs français et étrangers en visite d'agrément dans 18 villes françaises, Décembre
- OFFNER Jean-Marc (1993) Les "effets structurants" du transport : mythe politique, mystification scientifique, *L'espace géographique*, 3: 233-242
- OFFNER, Jean-Marc; Judith CREWS (1991) The TGV and territory development. A major risk for local development. The TGV Atlantic at Mans, Saint-Pierre-des-Corps, Tours and Vendôme: opportunities, actants, risks (Frédéric Bellanger). *Flux*, n°5:56-60.
- PAGLIARA, F., DELAPLACE, M. and VASSALLO, J.M. (2014) High Speed trains and tourists: what is the link? Evidence from the French and the Spanish capitals. Proceedings of the conference Urban Transport XX -

Urban Transport and the Environment in the 21st century. WIT Transactions on the Built Environment, 138 :17-27.

PECQUEUR, Bernard (2001) Qualité et Développement territorial : l'hypothèse du panier de biens et de services territorialisés, Economie Rurale n°261 :37-49

PECQUEUR, Bernard (2003) « Dans quelles conditions les objets patrimoniaux peuvent-ils être support d'activité ? », communication à la XIIIème conférence internationale RESER « Services et développement régional », Mons, 9 et 10 octobre

PRIDEAUX, Bruce (2000) "The role of the transport system in destination development", Tourism Management n° 21: 53-63.

PRIDEAUX, Bruce (1993) Possible effects of new transport technologies on the tourism industry in the 21st Century. Australasian Transport Research Forum, n° 18:245-258.

RFF (2010) LGV Sud Europe-Atlantique Tours-Bordeaux, Dossier de Presse - 30 mars

RIETVELD, Piet; Franck BRUINSMA; Hadewijch VAN DELFT; Barry, UBBELS (2001), "Economic impacts of high speed trains. Experiences in Japan and France: expectations in The Netherlands", Serie Research Memoranda (de Faculteit der Economische Wetenschappen en Bedrijfskunde), n°20

SANDS, Brian D. (1993) The Development Effects of High-Speed Rail Stations and Implications for California, Institute of Urban and Regional Development University of Berkeley, working paper, <http://www.uctc.net/papers/115.pdf>

SETEC ORGANISATION (2005) Etude des effets de la réalisation d'une LGV entre Bordeaux et Narbonne sur le développement des aires urbaines d'Agen et de Montauban et sur l'aménagement des territoires traversés, pour Réseau Ferré de France, 20p.

SOUTH EAST ENGLAND DEVELOPMENT AGENCY (SEEDA) (2008), HST Impact Study, Final report pour la Commission européenne, <http://www.hstimpactstudy.net/HTdocs/Images/mainreport150408.pdf>.

TODOROVICH, Petra; Daniel SCHNED; Robert LANE (2011) High-Speed Rail International Lessons for U.S. Policy Makers. Policy Focus Report Series, Lincoln Institute of Land Policy

Tourisme-Alsace, 2008, Bilan 2008 de l'année touristique en Alsace

TRANSPORTATION ECONOMICS & MANAGEMENT SYSTEMS (2007) Ohio Hub Passenger Rail Economic Impact Study. Chapter 12: Tourism Impacts, <http://www.dot.state.oh.us/Divisions/Rail/Programs/passenger/Ohio%20Hub%20Economic%20Impact%20Studies/TEMS12TourismImpacts.pdf>.

UIC (2013) High speed lines in the world, updated 1st November

URENA, José; Philippe MENERAULT; Maddi GARMENDIA (2009), The high-speed rail challenge for big intermediate cities : a national, regional and local perspective, Cities, Vol. 26, n°5:266-279

VALERI, Eva; Francesca, PAGLIARA; Edoardo MARCUCCI (2012) A destination choice model for tourism purpose. ASRDLF 2012 conference special session on High Speed Rail, Tourism and Territories, 9th-11th July, Belfort, France.

VICKERMAN R.W., 1997, High-speed rail in Europe experience and issues for future development, Annals of Regional Science, n° 31:21-38

VICKERMAN, Roger; Andreu ULIED, (2006), Indirect and wider economic impacts of high-speed rail <http://163.117.2.172/temp/agenda/mad2006/papers/12.%20Vickerman,%20Roger.pdf>

VILLE DE MARSEILLE (2011) Le tourisme made in Marseille, Direction de la communication.

VILLE DE ROANNE (2011) Le tracé par Roanne, une évidence pour 3 fonctions ! Projet de Ligne à Grande Vitesse Paris / Orléans / Clermont Ferrand / Lyon, Cahier d'acteur n°1, 4p.

VILLES ET REGIONS EUROPEENNES DE LA GRANDE VITESSE (2009) Cahiers de la Grande Vitesse. Numéro spécial : 25 ans de la Grande Vitesse sur nos territoires.

WANG Xin, Songshan HUANG; Tongqian ZOU; Hui YAN (2012) "Effects of the high speed rail network on China's regional tourism development", Tourism Management Perspectives, n° 1: 34-38

WOODSIDE Arch. G; Steven LYSONSKI (1989) A general model of traveler destination choice. Journal of Travel Research, 27, n°4:8-14.