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**Transport-Tourism Strategies for Accessibility Management in Tourist Cities**

1. **Introduction**
2. **The Relationship between Tourism and Transportation - Theoretical Overview**

As tourism and transportation are considered to be two different disciplines, most existing studies were performed on each discipline separately. The outcome is that the relationships between transportation and tourism have still not investigated deeply (La Rocca, 2015; Gross and Grimm, 2018). Although transport has been acknowledged as one of the most significant factors shaping the development of international and domestic tourism (Page, 1999), the importance of tourism related mobility has never been thoroughly investigated in mobility studies (Chew,1987; Gunn,1994; Hall,1991; Inskeep,1991; Page,1994,1999). This lack of theoretical basis incurred despite the fact that tourism has been the most substantial type of mobility over the past decades. Only lately there is an indication for evolvement (Gronau, 2017),

The main problem stems from the fact that conventional transport research has developed much knowledge on systematic demand trips (such as commuting), which has only one origin and one destination. It is clear that insights gained from regular mobility studies cannot be easily transferred to non-regular tourism and/or leisure trips, given the big differences in their nature. It is much more difficult to describe and explain multi-destination infrequent trips where the perceived utility of the trip stems from the trip itself.

Past studies ignored the need to explore the problematic nature of tourism oriented transport as mentioned above. The lack of mobility and accessibility transport management strategies for constrained urban setting is thus an evident.

Most studies of transport in relation to tourism has been mainly descriptive, focusing on the transport modes used to move tourists from their origins to their destinations and back (i. e. Page, 1994; Hodgson, 1988; Prideaux, 1993). Other studies, still in a descriptive manner, recognize the role of transport system as an essential component of successful tourism development (Hall et al., 2017; Gronau, 2017; Papaix and Coca-Stefaniak, 2020; Kaul, 1985; Wheatcroft, 1994;, Masson and Petiot, 2009; Khadaroo and Seetanah, 2008).

The confluence between a non-systematic demand as tourists, and a systematic demand as commuters, on the same space and infrastructures, creates the impacts aforementioned. Some studies analyze that effect, but very seldom entire solutions are presented (Page, 1995; Halsall, 1998; Hall, 1993, 1999; Prideaux, 2000; Gronan and Kagemeier, 2007; Schiefelbusch et al., 2007).

Many studies were focused on travel behavior and travel patterns to urban tourist destinations. Some of them concentrated on general modes (Halsall, 1998; Scuttari et al., 2011) while others on specific modes as “dockless” bike sharing (Yang et al., 2019), public transportation (Miravet et al., 2021) and pedestrian behavior (Asriana,, 2021). Forecasting the demand for tourism with relation to transportation infrastructures and modes was done by several studies. These studies indicate data and parameters that can influence the demand, but also here, tools for improving the accessibility were not suggested (i.e Okuyama, 2011; Tsukai et al., 2010; Perez-Olhoyoi et al., 2017; Yang et al., 2021). The use of transportation planning models in order to analyze travel patterns is performed largely (Mortazavi and Nerhagen,1998; Cohen and Harris,1998; Tot and David, 2010; Mason and Petiot, 2009; Tsukai et al., 2010). Also investigating the spatial distribution of tourism flows, with implications for planning, was in the core of many studies for different transportation modes as taxi (Bing et al., 2021), public transportation (Domenech and Gutierez, 2017), a sightseeing buses (Farias, 2010), and for general modes (McKercher and Lew, 2004; Gao et al., 2021 ).

Other studies have focused on measures of attractiveness of tourist destinations. Tol and David (2010) aimed to explore to what extent tourism incomes from accommodation receipts is connected to accessible public roads. In contrast, Kahtani et al. (2009) identify suitable methods for measuring accessibility to tourist attractions, by using a gravity model. Evaluation of the attractiveness of destinations with relation to different accessibility parameters were conducted by several studies, mainly with linkages to tourist behavior (Masson and Petiot, 2009; Khadaroo and Seetanah, 2007, 2008).

Only a few studies have looked into the mobility management issues. Generally, they overlooked through a very narrow prism on the complex array of transport-tourism problems in general and in urban areas in particular. Their conclusions called, for example, for encouragement of public transport use (mainly buses) and limiting the access of cars (La Rocca, 2015; Miravet et al., 2021; Hospers, 2019; Holding and Kreutner, 1998; Halsall, 1998; Eaton and Holding, 1996; Albalate and Bel, 2010; Gronan and Kagemeier, 2007). Other studies have focused on identifying the most important factors influencing the use of public transport and the associated level of satisfaction of its services, with regard to the profile of the users (Virkar and Mallya, 2018; Flows at al., 2019; Tan and Ismail, 2020; Guti´errez and Miravet, 2016). Main conclusions were about increasing the awareness of the transportation planners about visitors’ requirement while moderating the conflict between locals and visitors using the same public transportation. Some studies suggested various strategies, like the use of Park and Ride (Halsall, 1998), transportation integrated systems (Lehrer and Freeman, 1998), and integrated tickets (Halsall, 1998, Kraan et al., 1998), public transportation line that is oriented to tourist attractions with flexible stops (Ismail et al., 2017), and the use of city tours (Farias, 2010; Rudjanakanoknad and Rattanasuwan, 2011). Many other studies have looked on small transportation means that can diffuse easily the demand. Most popular are bikes in all shapes, personal, rented, with or without a dock (Yang et al., 2019; Yang et al., 2021; La Rocca, 2015; Nilsson, 2019; Davies et al., 2010). Other suggestions are small electrical vehicles for short distances (Davies et al., 2010) and cable cars for destinations with problematic topography (Sahril et al., 2020). Another strategy for diffusing demand is developing walkable pedestrian routes within the city with a good access to transportation system (Asriana, 2021; Ram and Hall, 2018; Hall et al., 2017). Another approach, not transportation-oriented was found in a study of 13 European cities regarding overtourism. There is a clear preference for enhancing the tourism industry, mainly the attractions, in order to respond the increasing demand (Koens et al., 2018). No doubt that such an approach cannot be sustainable without solving the problems of accessibility.

The use of several strategies simultaneously was performed by a few studies only. Schiefelbusch et al. (2007) suggest a combined strategies method for an event destination. A concept of “travel chains”, which combines travel and tourism activities, is introduced. It enables to assess the sustainability of transport services and packages by selecting the appropriate strategy. A comprehensive set of actions, based on best practices, was identified and appears as a checklist for planners for facilitating the creation of strategies (La Rocca, 2015). Such strategies could be balanced between pull measures (incentives) and push measures (restraints) in order to promote the best sustainable way for visiting the city. Pull measures refer to mobility polices for promoting a “car-free tourism”, while push measures refer to mobility polices aimed at dissuade the car use by imposing restrictive actions. Each of the two categories of actions is divided into two groups of actions: functional actions - mainly concerning the administrative level, and physical actions - mainly concerning the quality of urban spaces. The outcome is a detailed long list of all actions (oriented to transportation, administration economic, social and urban aspects) from which the planner or the decision maker will create the appropriate strategy. The selection process of actions and the way strategy might be created is not in the scope of this study. The use of comprehensive sets of strategies, specifically to historical cities, including implementation procedure, is suggested by Israeli and Mansfeld (2003), based on ARTIST (2000). As to be relevant for use, this research needs generalization and updating,

With respect to aforementioned, this paper investigates various aspects of the relationship between urban transportation systems and the characteristics of urban tourism. Based on a vast number of good practices and on empirical case studies from various European cities and other cities worldwide, this paper classifies solutions for managing tourism and visitor mobility into main strategies. Such solutions, that are found by a multi-objective analysis, can maintain the balance between the physical/social environment and the visitor experience, and will contribute to sustainable destinations.