Abstract

The scope of this dissertation is directed to the investigation of the bicycle mode as part of the multi-modal transportation concept of Singapore. This research paper is divided into three parts. The first part involves 'theorising' the relationships between urban planning and urban transport needs of Singapore. The second part, addresses the role of the bicycle mode in the contextual framework of Singapore's transport model that will enhance the public transport system. And last but not least, the third part of this dissertation consists of an empirical survey of feasibility studies and will address the implications of a bicycle policy in residential areas of the island.

Methodologically, this dissertation adopts a demographic approach to elicit information and conclusions from public agencies, that has a part to play in this research topic, through a series of interviews. The limitation is confined to the lack of private sector engagements in the process of this study, which would be highly valuable and may be attempted by future research on this topic.

It was found that most of the conditions favouring bicycle transport are already present in high population density residential areas of Singapore. If bicycle mode is being introduced, it will improve two levels of mobility. The first level of mobility concerns residents movement within their respective residential estates, while the second concerns the trans-regional level based on the 'Bike and Ride' concept. In regards to these conclusions, the bicycle mode can be utilised as a complementary form of transport to discourage the usage of car for both short and long distance travel, and hence, encourage the usage of the public transport systems in Singapore.

At present, there is no precedent form of transport policy in Singapore that incorporates the bicycle mode for commuting. At best, even with consideration made, they are marginalised to the periphery of transport planning resulting to its employment as a recreational mode. It is time to reconsider such proposition in view of energy constraints and the increasing awareness of environmental depletion due to the dominance of the car in our streets.