

**RAIL BUS INTEGRATION FOR COMMUTER TRAFFIC
FOR COLOMBO METROPOLITAN REGION**

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DECLARATION OF THE CANDIDATE

I declare that this is my own work and this thesis/dissertation does not incorporate without acknowledgement any material previously submitted for a Degree or Diploma in any University or other institute of higher learning and to the best of my knowledge and belief it does not contain any material previously published or written by another person except where the acknowledgement is made in the text

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DECLARATION OF THE SUPERVISOR

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ABSTRACT

Despite of Commuters often use more than one mode of transport even in a single journey an Intermodal coordination and organizational facilities of public transport service in Sri Lanka is yet to be developed. Transport Integration means coordination of two or more modes with a combine time table. Developing of integration between transport modes is difficult in Sri Lanka as several authorities separately involve in a decentralized sector fragmented transport service. In this context implementing of intermodal connectivity in the public transport system is a paramount requirement to improve the quality of the service.

Most of the passengers use to visit Colombo city when they travel other main cities of the country, since the Central, Gunasinghepura and Bastian Mawata bus stands and Fort rail way station of Colombo city function as primary hubs for bus and rail transport respectively though no proper integration in between above two modes. Aftermath is unnecessary traffic congestion in the city which leads environmental pollution as well as disadvantages of passengers such as long trip length and travel time etc. Proper railway system can prevent the congestion of roads in substantial extent. Passengers who use rail are not facilitated with an intermodal connection up to their destinations and hence they often use to walk more than 100m distance for the bus. This may discourage passengers' use of rail. The rail transport carries only a 10% of its total demand in Sri Lanka.

In this study the necessity of rail & bus integration in Colombo metropolitan region to reduce the difficulties of public transport passengers is explained comprehensively. Dematagoda rail station and surrounding bus stop towards Borella was taken to explain the current situation and the need of the connectivity in between Dematagoda station and bus stop towards Borella. An Origin/Destination and boarding counting survey was conducted to find the current situation. The study identified travel characteristics, demand for intermodal connectivity of the rail & bus passengers and their travel requirements to minimize the difficulties of their journeys.

63% and 66% of bus and rail passengers respectively use rail and bus as access mode. Majority of bus and rail passengers have home based work trips. It is 50% and 53% while the percentage of home based other trips are 42% and 41% respectively. There is no significant difference in trip purposes between rail and bus passengers. The railway can therefore, be expected to attract all types of trips.

Therefore it is necessary to improve the quality of the public transport service for commuter satisfaction. In this context participation of support of responsible authorities to implement an efficient intermodal connectivity of public transport system, giving special emphasis to Rail/Bus integration in Colombo metropolitan region.

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