

**PASSENGER PREFERANCE CRITERIA FOR
SELECTING RAPID TRANSIT SYSTEM FOR CITY OF
COLOMBO**

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II. Abstract

Traffic congestion is a condition on road networks that occurs as use increases and is characterized by slower speeds, longer trip times, and increased vehicular queuing. As demand approaches the capacity of a road, extreme traffic congestion sets in. Traffic congestion contributes to waste of time and money every second. Many developed/developing countries find solution for the traffic congestion at roads with the help of rapid transit systems.

Rapid transit systems can be dividing in to four major categories;

- Bus rapid transit (BRT)
- Monorail system
- Light rapid transit (LRT)
- Mass rapid transit (MRT)

The main objective of this research is to propose a methodology to select most appropriate rapid transit system technology for a given transport corridor with emphasis on passenger preference criterion for selecting rapid transit system for city of Colombo. The study consists of collecting user preference based on a questionnaire survey. Jayawardenapura corridor has been selected as a case study.

This corridor is highly congested at peak time and it will be increase at future due to administration city will become Jayawardenapura corridor. Hence it is essential to give proper solution for the increasing traffic in this corridor.

In addition to user preferences the questionnaire focuses on the drawbacks in existing systems, user expectations for a new system. These were used to identify the user related issues in existing systems and to find whether a rapid transit can address those issues.

According to the survey results of, 48% respondents of indicated that BRT may be the better option for selected corridor. Balance prefer an elevated system as opposed to BRT.

It is required to establish criteria based on the not only passenger's preference, but also constructability, connectivity with other modes, extendibility in future and environmental friendliness.

According to the research, passenger most preferred for the BRT system. With the connectivity with other modes monorail systems is better than BRT. Possibility of future expansion of the system, difficulty face with BRT system due restrictions of land acquisition. From the environment point of view, more emissions are expected from BRT system than Monorail system. According to the cost calculation it is lesser cost required to introduce BRT over Monorail or other elevated system.

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