

## Abstract

The purpose of this research is to study the development of mass rapid transit system in Bangkok and adjacent provinces (Bangkok Metropolitan Region) within the year 2004 – 2009 by taking into account the condominium residents' attitudes and behaviors toward the use of mass rapid transit versus private car use. The study of residents' attitudes and transportation behaviors was used not only to figure out the possibility of conversion from private car use to the use of mass rapid transit but also to propose measures for controlling the number of parking space in condominium in mass rapid transit serviced areas. The methodology used in this research consists of questionnaires and interviews. The sample group is made up of 415 condominium residents who live within 600 meters of a mass rapid transit station.

This study found that the government is currently planning to expand its mass rapid transit route from 43.7 km. to 291 km. This expansion will facilitate a speedy connection to 7 provincial areas and potentially reduce the use of private car. It is predicted that, in 2010, users of mass rapid transit will increase ten times while the use of private car will decrease by as much as 50 percent.

The results of the survey on residents' attitudes and behaviors show that 32.31 percent of the existing parking space area actually remain unused; 67.80 percent of residents use private car because their places of destination are not covered by existing mass rapid transit routes. Residents' attitude toward mass rapid transit is at "medium level" (average of 3.37) due to high fares and uncovered routes. Attitude toward parking space is also at "medium level" (average of 3.35), corresponding to the analysis that reduced time spent in mass rapid transit system will encourage the public to use mass transportation instead of private car.

When mass rapid transit development plan has been completed, 64.30 percent of resident agree that the number of parking space should be reduced, along with the revision of building regulation to set parking space area at 75.75 square meters of building area per car. In addition, 40.50 percent of private car users indicate a preference to switch over to the use of mass rapid transit. Consequently, the ratio of

building area to parking space should increase to 200 square meters per car. After completing a financial feasibility study on the new scenario in comparison to the previous measures, this research found that the project's profit will increase by 11.98 percent. Selling price can be reduced by 9.70 percent while maintaining a higher profit margin when compared to the previous scenario. These findings therefore present potential benefit not only for the government but also for the project developers, future condominium residents, and the society as a whole.