

Evaluation of Commercial Land Price Change in Response to Transport Infrastructure Improvement: A Case Study on Proposed LRT line in Sri Lanka

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Abstract

Transportation and Land Use are part of a wider activity system where the interaction between them is part of a complex framework. While the changes in Land Use characteristics would lead to change in activity patterns influencing the Transportation System, the changes in the Transportation Infrastructure have a direct impact on the change in overall accessibility levels as well as the relative accessibility of the specific locations. Thus, it is expected that any change in Transportation Infrastructure would lead to change in Land Use demand reflected with the changes in land prices. This research is targeted to capture the impact of Transport Infrastructure on Commercial Land prices. The proposed Colombo Light Rail Transit (CLRT-JICA) project has been selected as a case study to obtain the sensitivity of the Commercial Land prices under 3 stages, Pre-Introduction (2010-2014), Planning/Designing phase (2015-2019) and the Construction stage (2020-2021). Although the project was suspended in the year 2020, the research was extended beyond 2020 to observe the impact it has on Commercial Land prices which increased solely due to the CLRT. The Commercial Land price data obtained from two of the most prominent online web advertising agents, “Lanka Property Web” and “ikman.lk”, within a 2 km radius of four proposed main stations; Malabe, Battaramulla, Rajagiriya and Borella have been used in the evaluation. Narahenpita area (with an existing Railway Station) has been selected as the base to consider the prevailing trend of Commercial Land prices. A Multiple Regression Analysis using SPSS was carried out to find the relationship between the Commercial Land price per unit area as the Dependent Variable, explained by several Independent Variables such as the Distance to the nearest station, Distance to the main road, features of the property such as parking availability. The analysis is expected to explain how the price of Commercial Land is expected to have different sensitivity based on the independent attributes and the variation based on the stage of the Transport Infrastructure Project.

Keywords: *commercial lands, LRT, stations, distance, SPSS*

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