Assessing the Determinants that Affect the Choice of Personal Rapid Transit (PRT) in Colombo City

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Public bus transport system in Sri Lanka has created enormous problems like increasing passenger waiting times, overcrowding, travel time delay, lack of multi model connectivity etc. Due to these problems passengers are highly dissatisfied with the public transport system. This has resulted in the deterioration of the quality of bus transportation. Even though there is a demand for a better bus transport system, there is no proper mechanism to develop the system, and the weaknesses in the public transport has become a significant problem to the country's economy. Therefore, in order to overcome this problem, the researcher has come up with a solution to implement a system called '*Personal Rapid Transit to the Colombo City*'. Therefore, the research objective was to find out factors affecting the choice of Personal Rapid Transit in Colombo city. Primary data were collected with the use of simple random sampling technique. A factor analysis was carried out to find the covariance among variables. Hypothesis Test was carried out for identified factors to find significant relationships between variables, and Kruskal Wallis test was carried out with respect to demographic variables and identified factors. Binary logistics regression was carried out since the dependent variable is characterized by the dichotomous variable. Peak time and waiting time were considered as determinant factors when selecting this system. Using factor analysis, variables were divided into four factors and these factors were namely Features of PRT system, Passengers Requirement, Expectations of the community and Environmentalism.

Keywords: Dichotomous Variable, Multi Model Connectivity, Overcrowding