

## Abstract

Transportation is a sector which has been evolving throughout pre historic eras, where its absence is a great deprivation to meet the needs and wants of populations. As transportation has a derived demand, people in perpetuum generate trips either home based or non-home based. The contemporary society in any nation is more biased towards taxi services in fulfilling their desideratum at an increasing rate. Amongst all those conventional taxi services which we name as yellow cabs in other countries, app-based taxi services play fecund role in day today life of the people. Colombo metropolitan area, where majority of establishments takes place also having lofty land values and lack of space even for parking. Hence, the study focuses on determining the factors that would affect the choice of app-based taxi services by passengers where their ultimate satisfaction is accomplished.

The study will have two goals where it conclusively need to accomplish. Ie; determining the factors affecting the passenger satisfaction and secondly to what extent each determinant will have an impact on passenger satisfaction. And, factor analysis as well as regression analysis is conducted to accomplish the afore mentioned two goals. The impact of the demographic variables on passenger satisfaction was also tested using one way ANOVA test and concluded that only three demographics are individually affecting passenger satisfaction. The impact of each determinant on passenger satisfaction was analyzed by using coefficient matrix and the normality of the data set was also ensured not only through a single test but also through numerous tests to ensure the validity more.

Beyond the shadow of doubt, the author evaluated the validity of regression results through Diagnostic tests about app-based taxi service in Colombo metropolitan area. And, proposed several solutions to mitigate the problems related to app-based taxi services while satisfying the passenger's requirements in Colombo metropolitan area. This research also provides some recommendations to develop taxi service in near future.

Key words: app-based taxi services, passenger satisfaction