Estimating the parking demand for mosques

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Abstract

The objective of this thesis is to establish a technique for estimating the parking demand of Jahme'ahs by quick response technique employing a set of explanatory variables.

A set of eight explanatory variables was chosen to summarize the major characteristics of the Jahme'ahs and the neighborhood in which they are located.

The relationship between these variables and the parking demand is investigated by multiple regression analysis. Based on various statistical tests, only three explanatory variables were found to possess a high degree of explanatory and predictive power. These variables are: the distance of Jahme'ahs to central business district, the overall quality of Jahme'ah, and the types of parking facilities provided.

A relationship between these variables and the parking demand was then established in the form of a regression model.

This predictive model yielded coefficient of correlation of 0.742 with regression constants statistically significant at a 95% confidence level.