

IV. CONCLUSIONS

Parking volume at the shopping stores can be modeled with the input variable of accumulation, turnover, dynamic capacity, parking index, and average duration. Those variables are commonly used to assess the parking facility performance so that they have a multicollinearity problem. Therefore, the forming of the model use the principal component regression. The example of parking volume model for car during the weekend is $y = -62.251594 + 1.323154x_1 + 3.705282x_2 + 59.809931x_3 + 54.540470x_4 + 0.065764x_5$. Additionally, the percent duration can also be modeled with the input variable of accumulation, turnover, dynamic capacity, parking index, and parking volume. Like the parking volume model, the independent variables of percent duration, including accumulation, turnover, dynamic capacity, parking index, and parking volume, also have a multicollinearity problem. The model can be developed with principal component regression. The models of vehicle parking for shopping store are available for both vehicle and motorcycle, they are also available for both weekend and weekday to represent the type of the day. The example of percent duration model (duration < 10 minutes) for car during the weekend is $y_1 = 0.032362 - 0.000458x_1 + 0.005962x_2 + 0.035025x_3 - 0.020813x_4 + 0.000137x_5$.

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