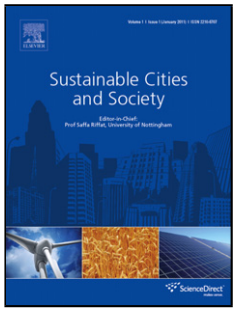

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An Analysis of the Factors Influencing Journey Time Variation in the Cork Public Bike System

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Research Highlights

- **-The paper present findings from a small city in Ireland on the under research field of bike sharing in small cities.**
  - **The paper proposes a method to estimate the differences between rental times and travel times.**
- **-The results show the spatial distribution of trip types in Cork.**

Abstract

The Cork Public Bike System was opened in December 2014. This system consists of a total of 330 bikes across 31 stations in Cork, with the scheme serving all the main trip attractors in the city. By using datasets of all trips taken in the scheme during 2015 and 2016, a number of new spatial and temporal variables were assigned to all 560,000 trips that have been used for the analysis in this research, in addition to a journey time that has been predicted by Google Maps for each individual route combination. These journey times from Google Maps were then compared with the actual journey times recorded in the dataset to create a new variable called Extra Travel Time.

Trips to and from stations that had a lower number of shops within walking distance were also found to be likely predictors of the trips with lowest extra travel time. The stations with above average public transport