At the Chair of Logistics and Supply Chain Management of TUM School of Management we are looking for an interested and qualified student to conduct his/her Project Study on the topic:

**Processing and Analysis of Car-Sharing Data**

Carsharing systems become more and more popular. In Germany, there are several companies providing their services to customers, especially in bigger cities. Even though, the system is supposed to work on its own, the demand fluctuations during a day make the system complex. First analyses showed that especially in the afternoon demand for carsharing services is high. Therefore, the number of cars in these areas will increase and customers in other areas might be lost if there are no cars available anymore. To rebalance the system, cars need to be repositioned. This complex task is already investigated in several mathematical models in the literature.

In order to plan relocation operations, it is important to analyze the demand and to recognize patterns depending on different factors like time or type of a day, booking area, weather etc. The goal of this project study is to process a dataset of a major German car-sharing provider, evaluate the demand and try to find correlations with different factors.

**Selected research tasks:**
- processing an existing dataset
- analyzing the booking data
- identifying areas with high / low demand
- compute availability of cars
- investigating possible correlations and determining factors (time, day, weather,...)
- writing a report

**Requirements:**
The project study is for students of the study-program TUM-BWL. Qualified candidates have a major in Supply Chain Management. First experience in Big Data Analysis (especially databases) as well as knowledge of MATLAB, R or similar may be advantageous. The ability to work independently as well as analytical skills are required. The thesis should be written in English.

**Begin:** ongoing

**Advisor:** Szymon Albinski

**Application:** Email with curriculum vitae and transcripts of records to logtheses.wi@tum.de