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

**Master thesis**

on the topic:

**Market Entrance Strategy for Carsharing Providers**

Carsharing, in particular free-floating and one-way carsharing, become increasingly popular as they give customers more flexibility than public transport or biking without the burden of private car ownership. Therefore, the number of carsharing providers is increasing. All operators face the challenges of how many vehicles to procure and where to locate them, but for new operators, the challenge is even more pronounced, as only little data is available. Improper service region design, fleet sizing, or vehicle distribution can make it impossible to properly predict demand in the future (as one can only measure customer rides, but not whether a customer remains unsatisfied). Thus, a market entrance strategy does not only include the aforementioned questions but must also include some randomization to build up a data basis for demand prediction. A qualified student will build a model to capture the tradeoffs between data generation and actual operations over time, and evaluate said model on artificial and realistic data.

**Selected research tasks:**

- Literature Overview on shared mobility solutions and operations thereof and business analytics challenges therein
- Modelling
- Evaluation of the model

**Requirements:**
The thesis is for Master students of the study-program TUM-BWL (with a major in Supply Chain Management). A qualified student has successfully participated in the course Modelling, Simulation and Optimization. Additional courses in data analytics, logistics or operations research are a plus. The ability to work independently as well as analytical skills are required. The thesis should be written in English (with supervision in German or English).

**Begin:** as soon as possible

**Advisor:** Layla Martin

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