Report on Bachelor Thesis

Institute of Economic Studies, Faculty of Social Sciences, Charles University

Student:	**Anita Baudyšová**
Advisor:	**Milan Ščasný**
Title of the thesis:	**Determinants of car-sharing use: Autonapůl Case study**

OVERALL ASSESSMENT

Short summary

The bachelor thesis of Anita Baudyšová analysis the determinants of car-sharing use, specifically demand on travels of the subscribers of one of the oldest, community-based, car sharing company – Autonapůl operated in the Czech Republic. Two datasets are combined: information about travels recorded in the App for every travel and subscriber, and the data coming form an survey conducted among the App users. Using these data from, the milleage (i.e. demand on travel), is econometrically analysed, paying an attention for potential selectivity (reporting no kilometers during a year) and sample selection (not agreeing to participate in the survey). Demand on kilometers is examined for the users differentiated by frequency of their travels and controlling for socio-demographic characteristics of subscribers.

Contribution

Literature on transport behaviour and modal choice is huge, still, the literature on car-sharing / car-pooling is scarce, covering either specific users segments (such as students) or locations (university campuses, downtowns). This thesis therefore contributes to this scarce literature, by examing the demand on travels (kilometers) by car-sharing mode in several Czech cities.

Methods

The performed analysis combines two different datasets. First, the data on km and the number of travels were provided by the company Autonapul (for every subscriber). Kilometers driven are measured and automatically recorded by the App. Hence this thesis does not suffer from the potential measurement error due to self/reported data that has been very often the case in similar studies. Second, the data from a survey are used (this survey was conducted by the Charles University Environment Center) when all the App subscribers were contacted (but only a part agreed to be self-interviewed). Non-response may result in a potential bias in the analysis – the thesis reflects this issue by using appropriate treatment.

Demand on travel by a shared car is analysed by standard econometric model. Since the App subscribers may not use the App during the study period (last 12 months) for many reasons, including being non-active, the thesis is paying a special attention for potential selectivity, by two-stage Heckman and two-part model, additionally to looking at who are the non-users. I also appreciate the investigation of potential sample selection bias (and possibly systematic attrition bias); this is done by checking whether the questionnaire was finalised more likley by light/heavy users.

Other model specifications and more sophisticated econometric models were not possible to perform due to the data availability and/or the business model (e.g. no price variation). However, during our consultations that took more than a year, Anita has learnt the other alternative econometric approaches suitable for other problems (and if the dataset is richer) which some of them went beyond the bachelor level.

Literature

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All key and relevant studies have been revieweded, and in my opinion all materials that were needed are used in the thesis and there are also well referenced. This thesis demonstrates author's very good understanding and command of recent literature in this field. The literature is quotted in a proper way.

Manuscript form

The thesis follows a logical structure. The text is very clear and the thesis is written in very good English. Exposition of the results is very clear and nicely readable. Tables and figures follow professional style. I have no comment on this point, except very minor things.

Overall evaluation and suggested questions for the discussion during the defense

This thesis presents a very nice piece of empirical research. Anita was very active, discussing frequently all points related to the data and/or analysis. All of my key comments have been considered and incorporated in the final version of the thesis.

I acknowledge that Anita was involved in a research unit I am in charge to lead focusing transportation behaviour and travel mode choice; she contributed by reviewing relevant literature, she prepared a part of an survey instrument, including its testing. Unfortunately, due to the reasons beyond her control, we were not able to conduct this survey as originally planned and hence Anita could not analyse the data on travel behaviour as we originally planned. I would like here to highlight her very usefel contribution to this (still infinsihed) research; Anita has showed her very good skills and capabilities to perform empirical research.

In my view, the thesis fulfills the requirements for a bachelor's thesis at IES, Faculty of Social Sciences, Charles University, I recommend it for the defense and suggest a **grade A**.

The results of the Urkund analysis do not indicate significant text similarity with other available sources.

SUMMARY OF POINTS AWARDED (for details, see below):

CATEGORY	POINTS
Contribution (max. 30 points)	28
Methods (max. 30 points)	28
Literature (max. 20 points)	20
Manuscript Form (max. 20 points)	20
TOTAL POINTS (max. 100 points)	**96**
GRADE (A – B – C – D – E – F)	**A**

NAME OF THE REFEREE: **Milan Ščasný**

DATE OF EVALUATION: **31 August 2023**

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Referee Signature

CONTRIBUTION: _The author presents original ideas on the topic demonstrating critical thinking and ability to draw conclusions based on the knowledge of relevant theory and empirics. There is a distinct value added of the thesis._

METHODS: _The tools used are relevant to the research question being investigated, and adequate to the author's level of studies. The thesis topic is comprehensively analyzed._

LITERATURE REVIEW: _The thesis demonstrates author's full understanding and command of recent literature. The author quotes relevant literature in a proper way._

MANUSCRIPT FORM: _The thesis is well structured. The student uses appropriate language and style, including academic format for graphs and tables. The text effectively refers to graphs and tables and disposes with a complete bibliography._

**Overall grading:**

TOTAL	GRADE
91 – 100	**A**
81 - 90	**B**
71 - 80	**C**
61 – 70	**D**
51 – 60	**E**
0 – 50	**F**