

Report on Bachelor / Master Thesis

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

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| Student: | Wojnarová Renáta |
| Advisor: | PhDr. Mgr. Kukačka Jiří, Ph.D. |
| Title of the thesis: | Agent-Based Analysis of Market Potential for Electric Vehicles in the Czech Republic |

OVERALL ASSESSMENT (provided in English, Czech, or Slovak):

The Bachelor thesis is a work exploring the economical, ecological, and social impact of a potential increase in a number of electric vehicles in the Czech Republic. The author aims to investigate the reasons behind low sales of electric vehicles in the Czech Republic at the present time and to propose most effective governmental policies to increase the popularity of electric vehicles among the population in the future. Overall, the analysis employed in the work and results seem to be reasonable at the first glance. However, the lack of a clear contribution of this work, its place in the literature, and several unsubstantiated assumptions significantly weaken the results and the quality of the thesis.

Contribution: Obviously, the topic of the thesis is interesting and relevant given the recent technological progress and advances in the field of electronic vehicles in particular. The major concern is the lack of a clearly stated contribution and a place in the literature in the beginning of the thesis. It is difficult to evaluate the value-added of the work as very few or no references are included with respect to current state of the topic.

Methods: The author provides detailed outline of the used methodology including the assumptions, calibration and sensitivity analysis. However, the motivation for choosing these methods is somehow unclear and abrupt. The author only briefly mentions other possible modelling approaches in the beginning of Section 3 and discusses some benefits of ABM approach. At this point, one would expect to see some references to existing studies with more details about pros and cons (for example, one can find „a software widely used for individual-based modelling by economists “on p. 20 without any citations). The lack of a clearly supported motivation for a usage of NetLogo undermines results of the analysis (why is it appropriate for modelling this phenomena? what are the advantages compared to other methods?). Additionally, it seems that the author’s analysis is based on unsubstantiated assumptions in many cases. For example, some values in the model are calibrated based on the US study without a supported justification why this comparison is accurate (clearly, one would expect to rely on numbers from the countries similar to the Czech Republic).

Literature and Manuscript Form: While it seems the thesis lacks the literature review, the manuscript otherwise has the correct academic structure. The effective literature review would enable the reader to understand the current state of knowledge and author’s contribution. Academic style of student’s writing might be approved.

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

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| CATEGORY | POINTS |
|---|-----------|
| <i>Contribution</i> (max. 30 points) | 12 |
| <i>Methods</i> (max. 30 points) | 20 |
| <i>Literature</i> (max. 20 points) | 5 |
| <i>Manuscript Form</i> (max. 20 points) | 15 |
| TOTAL POINTS (max. 100 points) | 52 |
| GRADE (1 – 2 – 3 – 4) | 3 |

NAME OF THE REFEREE: *Olena Chorna*

DATE OF EVALUATION: 5. 09. 2017



Referee Signature