## Report on Bachelor / Master Thesis

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

Student:	Adéla Pavelková
Advisor:	Doc. PhDr. Julie Chytilová, Ph.D.
Title of the thesis:	The impact of electric vehicles on the automobile industry

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

Please provide your assessment of each of the following four categories, summary and suggested questions for the discussion. The minimum length of the report is 300 words.

#### Contribution

In her bachelor thesis, Adéla studies the market with electric vehicles. The main aim of the thesis is to estimate future development of the share of electric car sales in different parts of the World. In addition, Adéla estimates the relationship between sales of electric vehicles and oil prices, and prices of standard cars. The thesis contributes to the literature on this topic which is relatively limited given that such analysis is a rather ambitious one and dependent on the assumptions made.

### **Methods**

At the beginning, the thesis provides a nice overview of the history of electric vehicles, their different types and recent development of the market with electric vehicles in several selected countries/regions. Then, Adéla presents the empirical analysis, in which she uses two approaches to estimate the future development of the market in these countries – trend analysis and the Bass Diffusion Model which has been used in the previous literature to estimate diffusion of a new product. I appreciate that the author used two different methods and also that she had to collect data from various sources to perform the analysis. At the same time, the future development is very difficult to estimate and the results of any model are heavily dependent on the assumptions made. Therefore the thesis should elaborate in detail on the choice of the parameters (p and q) in the Bass Diffusion Model and in general, on the limitations of the analysis. Such part is largely missing.

### Literature

The thesis provides a literature review on the topic and the author has a good knowledge of the relevant literature and refers to it properly.

### **Manuscript form**

In general, the thesis reads well and is clearly structured.

In the descriptive part of the thesis, there are some inconsistencies in the figures, for which the notes say they display share of electric car sales, but in many cases they display a different measure -- e.g. for Norway it displays the percentage of electric vehicles on all car sales while for China it displays the percentage of pure electric vehicles on sales of electric and hybrid cars. Similarly, in the results section, future development of electric vehicles car sales is displayed in percent for some countries and in absolute numbers for other countries

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## Summary and suggested questions for the discussion during the defense

To sum up, I believe the thesis fulfills the requirements for a bachelor thesis at IES, Faculty of Social Sciences, Charles University, and suggest grade C.

Suggested questions for the discussion during the defense:

- How exactly did you set the parameters in the Bass Diffusion Model? How sensitive are the results to changes in these parameters?
- You analysed several countries/regions for which the data is available. As you describe, these are regions with a relatively high share of electric vehicles. What do you think would be the results for other countries?

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

CATEGORY		POINTS
Contribution	(max. 30 points)	25
Methods	(max. 30 points)	15
Literature	(max. 20 points)	20
Manuscript Form	(max. 20 points)	12
TOTAL POINTS	(max. 100 points)	72
GRADE (A - B - C - D - E - F)		С

NAME OF THE REFEREE: Julie Chytilova

DATE OF EVALUATION: May 28, 2018

Referee Signature	

## **EXPLANATION OF CATEGORIES AND SCALE:**

**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.

Strong Average Weak 30 15 0

**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.

Strong Average Weak 30 15 0

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

Strong Average Weak 20 10 0

**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.

Strong Average Weak 20 10 0

## Overall grading:

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