

## REFeree'S REVIEW

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|-------------------------|--|
| <b>Program:</b>         | Master in Management (MIM)   |
| <b>Student:</b>         | Yuchen Zhao  |
| <b>Title of thesis:</b> | <p><b>Prediction and decision making support in Dutch electricity market using big data techniques: a comparative analysis of different approaches</b></p> |

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|---|----------|---|---|---|
| <b>Justification of the topic choice. Accuracy in defining the aim and objectives of the thesis.</b> Justification of the topic choice; accuracy in defining the aim and tasks of the thesis; originality of the topic and the extent to which it was covered; alignment of the thesis' topic, aim and objectives.    | <b>5</b> | 4 | 3 | 2 |
| <b>Structure and logic of the text flow.</b> Logic of research; full scope of the thesis; alignment of thesis' structural parts, i.e. theoretical and empirical parts.  | <b>5</b> | 4 | 3 | 2 |
| <b>Quality of analytical approach and quality of offered solution to the research objectives.</b> Adequacy of objectives coverage; ability to formulate and convey the research problem; ability to offer options for its solution; application of the latest trends in relevant research are for the set objectives. | <b>5</b> | 4 | 3 | 2 |
| <b>Quality of data gathering and description.</b> Quality of selecting research tools and methods; data validity adequacy; adequacy of used data for chosen research tools and methods; completeness and relevance of the list of references.   | <b>5</b> | 4 | 3 | 2 |
| <b>Scientific aspect of the thesis.</b> Independent scientific thinking in solving the set problem/objectives; the extent to which the student contributed to selecting and justifying the research model (conceptual and/or quantitative), developing methodology/approach to set objectives.                        | <b>5</b> | 4 | 3 | 2 |
| <b>Practical/applied nature of research.</b> Extent to which the theoretical background is related to the international or Russian managerial practice; development of applied recommendations; justification and interpretation of the empirical/applied results.  | <b>5</b> | 4 | 3 | 2 |
| <b>Quality of thesis layout.</b> Layout fulfils the requirements of the Regulations for master thesis preparation and defense, correct layout of tables, figures, references.   | <b>5</b> | 4 | 3 | 2 |

Each item above is evaluated on the following scale, as applicable: 5 = the thesis meets all the requirements, 4 = the thesis meets almost all the requirements, 3 = a lot of the requirements are not met in the thesis, 2 = the thesis does not meet the requirements.

### Additional comments:

*Please, elaborate on the above mentioned criteria (about 250 words)*

The thesis is addressing the topic of big data in a particular application to the Dutch electricity market forecasting. The role of big data can hardly be overestimated. Its opportunities however are yet to be studied by both researchers and practitioners.

Current master thesis provides a thorough investigation of theoretical underpinnings of the big data usage for practical purposes. Research motivation, as well as the choice of the market are well justified. More specifically, it is a high number of potential factors, influencing decision making in the energy industry, that is motivating the use of big data in the forecasting and decision making model.

A strong side of the thesis is that the Author is addressing multiple alternative models both at the stage of theoretical investigation and empirical calculations, thus adding to comparative outcome evaluation and assessment of the advantages of the central for the thesis model.

Author is paying close attention to documenting each step in modeling and evaluating the model. Moreover, all the detailed syntax files are present in the master thesis appendices for a closer examination.

The advantage of the thesis is its specific nature at the stage of the problem formulation and the task execution. The variety of tasks for the big data application is high, and only specific task definition can help in producing detailed applied recommendations as we can see in the current research.

Master thesis of Yuchen Zhao meets the requirements of the MiM program, and according to the reviewer's opinion deserves a/an "excellent (A)" grade, thus the author can be given the desired degree.

Date May, 31 2016

Referee:

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