

Report on Bachelor Thesis

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

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|-----------------------------|--------------------------------------------------|
| Student: | Lukáš Tuček |
| Advisor: | RNDr. Michal Červinka, Ph.D. |
| Title of the thesis: | Game Theory Approach to Hostile Takeovers |

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

Please provide your assessment of each of the following four categories. The minimum length of the report is 300 words.

The thesis concerns hostile takeovers of companies, in particular defense strategies of the management against hostile takeovers. The author applies basic concepts of game theory to formulate a novel extensive-form game theoretical model. The thesis has quite ambitious goals, which were, unfortunately, not fully met. I provide more details below.

Contribution

The thesis can be divided into three main parts corresponding to major chapters of the manuscript. Chapter 2, Hostile takeovers, is very well written, and serves as masterfully written overview of basic terminology, main defense strategies against hostile takeovers and literature overview, which comprises of impressive large list of references. In my opinion, it is the best part of the thesis. The second part, Chapter 3 – Games in extensive form, introduces elements of game theory, focusing on games in extensive form which are the main workhorse of the final section of the thesis. Although the author tends to be a bit sketchy in this part, I find it quite adequate for the subsequent text. I would only recommend to emphasize more the basic theoretical results of the concerned type of games, such as existence, uniqueness etc. I have a mixed feelings regarding the final part, Chapter 4 – Game-theoretic model of hostile takeover, which is clearly the key part and unfortunately also the weak point of the manuscript. Despite the clear motivation (and ambition) to incorporate all main defense strategies discussed in earlier sections, the model seems to suffer by excessive number of variables used and derived formulas are very difficult to read and interpret (although it is not making it any harder to verify the authors own calculations). I would prefer to restrict to less number of strategies to make the derived model more illuminative. The thesis tends to seem incomplete as one would expect some application of the derived model to follow; either academic example illuminating the key elements/properties of the model or an attempt to re-visit a real case of hostile takeover and analyze the situation from the model point of view. At least, the author is aware of these shortcomings and provides comments on this on pages 38 and 39.

Methods

Methods used in the thesis are adequate for the proposed goals and are standard knowledge of the bachelor students at the institute.

Literature

The author managed to put together a large list of key references for both introduction to game theory and games in extensive form, and hostile takovers. It contains both seminal works from the previous century as well as recent papers and monographs on the topic.

Manuscript form

The author uses nearly flawless English, although, one can find occasional misprints. These, however, do not influence readability of the manuscript. Pages 33 to 37 contain mathematical expressions which seem to be inserted in the text as figures copy-pasted from different document, which feels rather awkward. Also, I would recommend the author to avoid using footnotes to mathematical expressions, such as footnote 10 on page 29.

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Suggested question for the defense: As some of the parameters of the defense strategies are considered as variables in the proposed model, from the perspective of their interpretation, are there some recommended values or typical (or natural) ranges of their values?

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

| CATEGORY | POINTS |
|-----------------------------------------|---------------|
| <i>Contribution</i> (max. 30 points) | 13 |
| <i>Methods</i> (max. 30 points) | 20 |
| <i>Literature</i> (max. 20 points) | 19 |
| <i>Manuscript Form</i> (max. 20 points) | 15 |
| TOTAL POINTS (max. 100 points) | 67 |
| GRADE (1 – 2 – 3 – 4) | 2 |

NAME OF THE REFEREE: RNDr. Michal Červinka, Ph.D.

DATE OF EVALUATION: September 7, 2017

Referee Signature

EXPLANATION OF CATEGORIES AND SCALE:

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

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

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

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 POINTS | GRADE | | |
|--------------|----------|----------------|---------------------------|
| 81 – 100 | 1 | = excellent | = výborně |
| 61 – 80 | 2 | = good | = velmi dobře |
| 41 – 60 | 3 | = satisfactory | = dobře |
| 0 – 40 | 4 | = fail | = nedoporučuji k obhajobě |