Report on Bachelor / Master Thesis

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

Student:	**Petr Čala**
Advisor:	**doc. Zuzana Havránková**
Title of the thesis:	**Do money rewards motivate people? A meta-analysis**

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

Short summary

My report is short because Petr Čala consulted his progress with me regularly. When I had comments on his approach, he reacted swiftly. In consequence I have few objections to the final outcome, which in my opinion is superb and could pass for a dissertation thesis chapter. An incredible amount of work and time went into this thesis and it shows. If this was a master's thesis, I would still recommend an A and would ask the comittee to consider granting this excellent thesis an award. This is the best thesis I have ever supervised.

Contribution

Petr Čala presents an innovative meta-analysis of the effect of money rewards on motivation. He collects 1,568 estimates from 44 studies (along with 30 variables that reflect the context in which the estimates were obtained). He shows that the literature is biased by publication selection, and he estimates the size of the bias. Moreover, he estimates how different data and estimation choices affect the reported effect systematically. The analysis is technically correct and presents the first rigorous meta-analysis on this topic. The contribution is clear-cut and I cannot award less than 30 points here.

Methods

Petr Čala uses up-to-date techniques, none of which are taught at the IES at the BA level (or MA level, for that matter): the selection model of Andrews and Kasy, the weighted average of adequately powered technique by Ioannidis et al, the stem-based technique by Furukawa, Hierarchical Bayes, the caliper test, p-uniform*, Bayesian model averaging, and frequentist model averaging. While R-codes for these techniques exist, it is not easy to apply them correctly. Petr Čala manages to do so, and his thesis presents a logical, consistent, and rigorously backed flow of argument. I also appreciate the best practice analysis at the end of the thesis and examination of economic (in addition to statistical) significance. Great work throughout; and again, I cannot award less than 30 points here.

Literature

This is a meta-analysis, which means that topic of the thesis is a careful coverage of the literature on the topic. Here it is executed well. The references are well employed inside the text and the arguments are cautiously discussed and supported by relevant sources. Ioannidis et al is missing a journal but there are 10 pages of

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references in the thesis. I can live with this omission and award full points here as well.

Manuscript form

The thesis is competently typeset in LaTeX, well formated, and written in good English. I find it difficult to expect more from a bachelor thesis.

Overall evaluation and suggested questions for the discussion during the defense

In my view, the thesis fulfills the requirements for a bachelor thesis at IES, Faculty of Social Sciences, Charles University, I recommend it for the defense and suggest a grade A. Moreover, I think the committee should consider an award in this case. This superb bachelor's thesis could pass for a chapter in a dissertation thesis and certainly would be publishable in a good international journal. When I write this in a report on a bachelor's thesis, I must grant 100 points. Petr Čala is an extraordinary talent, and I believe he should consider pursing PhD.

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

A question for thesis defense: the funnel plot shows several outliers (values outside the main funnel). Could the author link these outliers to the factors that he finds are associated with heterogeneity in the literature?

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

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

NAME OF THE REFEREE: *doc. PhDr. Zuzana Havránková, Ph.D.*

DATE OF EVALUATION: *May 12, 2021*

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.*

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