

## Master's Thesis Supervisor's Expert Opinion

Student: Osborn Agyenim Boateng  
 Student Number: E21894  
 Title of Master's Thesis: Circular economy indicators as a supporting tool for Regional development  
 Aim of the Thesis: The aim of the thesis is to analyze the influence of circular economy indicators on regional development in selected European countries. The student first defines the concept of circular economy, then defines its main indicators and analyzes their impact on regional development. Part of the thesis will be to define the role of the public sector in stimulating the environmental behavior of selected regional stakeholders.  
 Thesis Supervisor: Assoc. Prof. Viktor Prokop, Ph.D.  
 Study Programme: N0488A050002 Regional Development and Governance  
 Academic Year: 2022/2023

### Difficulty of the Topic

	Excellent	Very good	Satisfactory	Unsatisfactory	Cannot be evaluated
Theoretical knowledge	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Input data and their processing	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Methods used	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### Thesis Evaluation Criteria

	Excellent	Very good	Satisfactory	Unsatisfactory	Cannot be evaluated
Degree of achievement of the aim of the thesis	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Original attitude to the topic processing	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Adequacy of the methods used	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Depth of analysis (relative to topic)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Logical structure of the thesis and scope	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Working with Czech and foreign literature including citations	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Formal arrangement of the thesis (text, charts, tables)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Language level (style, grammar, terminology)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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## Applicability of the Results of the Thesis

	High	Medium	Low	Cannot be evaluated
For theory	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
For practice	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

## Other Comments on the Thesis

The student has chosen a topic that is current and relevant. However, the method of processing the diploma thesis is debatable from several points of view.

In general, the thesis contains several typos, formal errors, the author also often changed the text, which was corrected by the supervisor, and thus the author did not respect all the instructions and recommendations of the thesis supervisor. The official document submitted by the student also lacks page numbers and, for example, chapter 2 does not start on a new page.

The first chapter is focused on the issue of regional development, however, in this part I do not quite see the logic in the sequence and ordering of some theoretical concepts. For example, I don't understand why the author lists Open and Closed Innovation theories under the Triple-Helix concept. Furthermore, it is not logical why the determinants of regional development are among the theories and not placed beyond the theoretical concepts. Endogenous growth theory should be separate sub-chapter, not under regional development theories. Section 1.3.2 - I assume the author meant Neo-Institutional Theory. The formal arrangement of some parts is also weak, for example table 1.

Chapter 2, for example, I miss the logic in why the author only mentions "Netherlands Government Shifts towards Circular Economy" in section 2.3.2. Considering, which countries the author has chosen for analysis, the author could also list transformation plans towards CE for the Czech Republic and Germany. There are frameworks such as "Circular Czechia 2040", which are also in English.

Methodological part - firstly, the author should better argue the choice of variables. Secondly, the author should have dealt with the influence of CE indicators on regional development, however, here the author focused on "macro" development and perspective, which he justifies as follows: "The researcher also employed Gross Domestic Product (GDP) and Global Sustainability and resilience (GSR) as the dependent variable because the EU used these two indicators to measure regional development of the various countries." Here I am missing a reference to specific studies that applied this procedure. The author is very careless and gives incorrect descriptions in the description of the variables (table 4). For example, for the independent variable "National Budget expenditure on environmental protection" the author writes the following explanation "Gender Development Index assesses gender inequalities in development outcomes between males and females within countries." The same, for example, for the variable "Secondary raw materials". Country selection - arguments for country selection are very weak and general, not supported by literature. Each of the states should be justified as to why it was chosen. Are the selected states comparable? The author then describes the individual states, he also mentions the Circular Czechia 2040 plan, however, rather than describing this plan in this part, I would appreciate it if the author discussed the choice of country more.

Results, the author performed two analyzes for each of the selected states, for each dependent variable. This passage is again affected by several formal shortcomings, the text is more difficult to read, the author could have at least indicated for which of the dependent variables the model is built in the table titles - to make orientation in the text easier for the reader. Also, the author had space to include the full names of the variables instead of abbreviations in the tables. The reader must then return to the variable table.

The author discusses his results in section 4.4. However, some arguments are weak - for example, the author states that "Several studies support the idea that these variables contribute significantly to regional development" for the Czech Republic, but, there are no examples of such studies. The discussion is long, however, for the most part, the author only repeats over and over which variables were confirmed to be significant in the models, but does not examine these results more deeply. This text does not show a clear result for the selected states + I would have expected a summary and comparison of the states and the author's effort to logically explain the results. In some passages it is possible to observe this effort on the part of the author, but in some passages, it is

more like another "literature review".

Conclusion - the author should be careful about the statements he makes. For example, the author writes that "The study also concludes that there are interconnectedness of sustainability, resilience, and economic growth. When the Czech Republic, Germany and the Netherlands implement these practices, they do not only protect the environment but also enhance economic performance, create jobs, and foster innovation" - but the author cannot state such conclusions based on his results. At least, it is not clear from the description of the variables what the indicators chosen by him actually express. At the same time, the author did not examine the innovativeness of states, their resilience, job creation and so on. Recommendations are very general.

An additional problem is that the author paid only reduced attention to the part of his goal regarding "Part of the thesis will be to define the role of the public sector in stimulating the environmental behavior of selected regional stakeholders." Here I see a big shortcoming of this work, because I would expect the author to analyze the influence of "public sector authorities" on selected regional stakeholders in the methodological part.

I appreciate the amount of work that the author has done in his thesis, but I criticize the author that he consulted less in the final stage, did not follow the supervisor's instructions, has a large number of formal errors in his work.

Although I recommend the work for defence, I suggest a grade of E.

## Comments on the Outputs from the Theses System

2 % - work is not plagiarism

## Questions and Suggestions for Defence

A) The author should respond to my comment regarding the missing deeper analysis of "the role of the public sector in stimulating the environmental behavior of selected regional stakeholders". At the same time, I expect the author to describe this role within the discussion.

B) The author can respond to my other comments.

## Final Evaluation

I **recommend** the thesis for the defence.

I propose to grade this Master's thesis as follows: **E**

In Pardubice 17.1.2018

Signature .....