

Dissertation review

I consider the dissertation thesis authored by Ing. Abdeloualid Rouag titled „**The Transformation of the Public Sector and Its Financing**“, completed at the Faculty of Economics and Administration of the University of Pardubice under the supervision of Assoc. prof. Jan Stejskal, Ph.D.

The topic of the dissertation is very interesting and ambitious. It is unusual for a dissertant studying in the Czech Republic to conduct research abroad and to propose changes in the public sector of a foreign country. The ambition of this doctoral student is to help his own country - Algeria, where the consequences of the phenomenon called "the resource curse" can be expected in future.

In the theoretical part, the doctoral student presents a summary of information about the public sector. It is based on classical foreign literature, but neither Czech nor Slovak sources are not avoided, which I find surprising. The basic attributes of public sector theory such as scope, state intervention, equality, justice, but also effectiveness is dealt with. I have no reservations about this part of the dissertation thesis. I appreciate that the author has dealt with the resource curse in detail and has also added a list of studies dealing with this phenomenon (Table 1 and Table 2).

An important part of the dissertation thesis is the second chapter, where the author deals with the measurement of public sector performance. Here, the author draws on good literature and sums up his knowledge. Perhaps the author might have been more daring to present his own views and standard knowledge of measuring public sector outputs. In Chap. 2.2 is a presentation of very general concepts that could be presented on examples of selected public services. Chapter 2.4 is slightly sub dimensional, and the author has been able to decipher and provided an overview of the most important methods for evaluating efficiency in the public sector.

I find the goals of the dissertation satisfactory. These are two main goals that are, in my view, feasible and have the potential to bring new insights into the area of performance evaluation of public sector performance. Partial goals and the main goals were sufficiently achieved. Part of the chapter devoted to the methods is disproportionate. The DEA method was probably decided from the very beginning (from the "dissertation proposal" processing), which is evidenced by the extent of the theoretical discourse. I consider the method appropriate for the purpose, but at the same time I draw attention to the weaknesses of the method that can affect the results.

The practical part of the thesis is elaborated logically and in accordance with the stated goals of the dissertation. The author has demonstrated that he is able to research the subject, to use the specified method to obtain partial as well as overall results. I appreciate that the author made a very wide-ranging discussion on the choice of indicators, but also discussed the quality of the available primary data. In Chap. 4.1.2 he presents partial results (ranking of countries according to PSP). Partial calculations are given in the appendix. A certain obsolescence of data may be a reservation, but can be understood in the context of the dynamic development of a given MENA region. The research results are highlighted, which I appreciate.

On the basis of the results and the fulfilment of objective 1, the author used the PCA method and fulfilled objective 2. I very much appreciate the extent of the discussion of the results presented in chap. 4.3. This is a very extensive structured set of recommendations and suggestions of the author.

These are non-trivial incentives and proposals that could be implemented in practice, thereby ensuring greater financial stability for Algeria in a situation where oil stocks are minimal. It is important to consider that the author relies on his views and suggestions and discusses the conclusions of other researchers, thereby increasing the relevance of his conclusions.

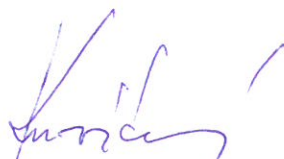
Since the aim of the dissertation was to prepare the proposal for transformation and financial changes, the author prepared also the subchapter no. 4.4, where he summarised the results and suggestions. I do not have any reservations about this section. Only their implementation in practice can show their usability.

As part of the discussion, I would like to ask whether the issue of "resource curse" is somehow accentuated / solved in Algeria. Please indicate if you have consulted your proposals with Algerian public sector bodies or if you are planning to submit a dissertation to one of the institutions.

Conclusion

Based on the evaluation of the presented dissertation thesis, I note that the dissertation is processed in a corresponding way, it brings scientific knowledge and therefore I recommend it for the defence and after successful defence, I recommend to award a Ph.D. degree to Ing. Abdeloualid Roug.

In Banská Bystrica, August 20, 2018.



prof. Ing. Helena Kuvíková, PhD.

**Matej Bel University in Banská Bystrica
Faculty of Economics**

Opponent's Report

Thesis: "The Transformation of Public Sector and Its Financing"

Author: ing. Abdeloualid Rouag

Supervisor: assoc. prof. ing. Jan Stejskal, Ph.D., Faculty of Economics and Administration, University of Pardubice

Opponent: prof. ing. Jaroslav Macháček, CSc., Faculty of National Economy and Public Administration, University of Economics in Prague.

Date of Opponency: 18.9.2018

The issues, author deals with in the thesis presented, are marked with crucial importance in case of number of Third World countries. The phenomenon in question is paradoxical effect in terms of economic performance and growth as well as of amenities essential as regards broad population's quality of life, brought about by wealth of natural resources. As public sector is responsible for providing the mentioned amenities and conditions for supplying public goods, its dimensions, structure, quality and also financing matter substantially and are likely to undergo transformation processes in these countries.

When conceiving the theme, author arrived at *intersection of three dimensions* important in the respective regard: the factual one, involving condition and development of public sector, the spatial one, representing specific aggregation of countries denoted by the acronym MENA (Middle East and North African countries) and methodological dimension, presenting the issue of measurement, interception or assessment of performance, effectiveness and efficiency in public sector.

The setup of thesis has been formed in this sense. *Primary structure* of the study is represented, beside introduction and conclusion, by four main chapters: First one conveying theoretical explanation and arguments, pertaining to the position of public sector in national economy, second one to measurement of its outputs, third chapter brings discussion on methodological procedures making possible analysis of examined issues and selection of such a procedure, fourth chapter deals with proper application of the chosen methods on data and findings concerning situation in MENA countries – followed by interpretation of results and discussion about the

problems significant in the respective thematic area. The potential and proposed actions and measures deemed desirable have also been included into this fourth part.

The composition of thesis is logical, its major parts are connected appropriately, theoretical and generally methodological explanations are consecutively followed by the permeation into the domain of economic reality in particular countries. Approximately half of the study is theoretically and methodologically oriented and second half is focused on application.

In the initial, *theoretical part*, author pursues to tackle such issues and phenomena that he deems substantial in terms of framing pertinent research and interpretation of its outcomes. Even though the disquisition of approached theoretical aspects does not create profusely interlinked whole, presented theoretical argumentation is quite sufficient for the purpose of thesis. The problem of “resource curse” (in other renderings in literature “Dutch disease”), representing main concern of the study, has been characterized in all necessary details as well as the approaches to its researching.

Relations between the effectiveness (and efficiency) in public sector on the one hand and its performance (with its paramount aspects which are service availability, quality and price) on the other form the centreline of explanation in the section dealing with output of public sector and their *measurement*. Author observes also other sides of public sector’s functioning, particularly equity, quality and sustainability. Assessment of performance, according to the key concepts which author refers to, should be based on three fundamental criteria – “input, output and outcomes”. Each of the mentioned terms has its specific purport, especially subtle difference between output and outcome has uncontentious meaning.

Measurement of performance in public sector is viewed in the context of its real functions and impacts involving decision making in this domain. Author pays attention to different types of purpose as for measurement of performance as well as to the various potential interpretation of measurement’s results. The point of substantial *internal differentiation* within public sector, with regard to the nature of its particular areas (health care, education etc.), has been rather left aside. This applies not only to the relations of “input – output” type, but also to the inner disposition of individual components of public sector involving different opportunities for performance

measurement. This is especially important in relation to “outcomes” being marked with specific spatially and in terms of time intangible effects, hardly measurable.

Objectives of the thesis are characterized at large in its introduction but their development in details comes up in third chapter where two main objectives are formulated. The first one can be understood above all as the assessment of assets and contributions of public sector with regard to possible abatement of dependency on exported non-renewable raw materials and resources generally in the surveyed countries. The objective “A” (p. 44) has been somewhat vaguely, unclearly formulated, which applies also for partial aims (e.g. aim “A2”: With what intention, for what purpose the relevant data would be analysed?). Likewise, in case of objective “B” would be more meaningful to replace the term “indicators” by the notion “factors” (characterized or described by means of appropriate indicators) and to connect the substance of this aim with “.....establishment of reform framework and policy recommendation.....”, p. 44). Out of two set hypotheses, the H2 hypothesis, related to “...institutional quality and management of public finance...” stands for the key one – in the context of following analysis and interpretation of its results.

The description of methods and approaches to the elaboration of the respective subject matter fulfils standard demands for the studies of this kind. The part of study dealing with methodological solution includes certain substantiation for selection of Data Envelopment Analysis (DEA) as a tool for assessment of effectiveness (possibly also efficiency) of activities in public sector. Beside DEA, another procedure for this purpose, namely Principal Component Analysis (PCA), has been selected and described as an instrument making possible effectiveness evaluation, including the limitations of this method.

Second half of the thesis is represented by fourth chapter presenting application of both mentioned methods on the data related to the countries included into the regional grouping MENA. Obvious hassle in this regard is limitation of availability of data needed for comprehensive analysis, particularly their irregular occurrence in observed periods of time. If comparison is intended, the data referring to a longer period are used (table 7, p. 63, period 2001 – 10; In this table, explanation providing meaning of asterisks in case of some figures is missing.) Author draws information and data on number of resources. Even though the results of their elaboration are partly based on approximations, it can be rightfully presumed that they indicate state

special significance. Considering abbreviations, not all of the important ones have been included into the respective listing (p.9).

The following questions may become parts of oral discourse within defence procedure:

- a) What is the meaning of the term “sustainability” in the context presented on the page 32 and elsewhere in the study?
- b) How should the difference between the notions “output” and “outcome” be understood with regard to the analysis conducted?
- c) Discuss in more details the objectives presented on the page 44.
- d) What are the main obstacles in terms of carrying out institutional reforms in the observed countries – out of the mentioned ones (p. 112) and possibly others.

Conclusion of the report:

Assessed thesis represents considerable volume of highly qualified work that had been, for elaboration of the thesis itself and for the implementation of research supporting this process, exerted. It testifies to the author 's ability to apply the principles of scientific work, the results of which he is capable to utilize in an adequate manner. The dissertation contributes to the building of scientific knowledge basis in the respective professional area. I recommend the thesis for the final defence proceeding and propose - in case of successful oral process – granting the Ph.D. degree.

Prague, 21.8.2018



Jaroslav Macháček



Review on Dissertation

Author: Ing. Abdelwalid Rouag

Title of the thesis: The Transformation of the Public Sector and its Financing

Supervisor: Doc Ing. Jan Stejskal, Ph.D.

Reviewer: Doc. Mgr. Jiří Špalek, Ph.D.

The thesis deals with one of the most topical issues in the public sector research: the effectiveness (or performance) of the public sector.

The author elaborates the issue in perspective of the developing countries, particularly the countries rich in (natural) resources. He selects the subsample of North African and Middle East countries (MENA countries) to assess their performance and evaluate validity of the resource curse theory.

The main aim of the thesis is to assess the public sector performance of the sample economies and identify the indicators which affect the identified performance. To meet the aim, the author employs quantitative research methods. The Data Envelopment Analysis (DAE) and Principal Component Analysis (PCA) are the prominent ones.

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The author postulates two assumptions which base his research. From the methodological point of view, it might be better to transform the assumptions to the hypotheses which are able to be falsified. In that case, the main story of the thesis would be easier to follow.

In the first part of the thesis (chapter 1 and 2), the author summarizes the current literature on the topic. The author proves to be very well oriented in the field (as documented e.g. by the Table 1 on p. 10).

In the third chapter, the author defines objectives and methods. Although it is worthy to present the main logic of the DEA and PCA methods, I find the text on p. 30 – 34 and p. 37 quite extensive. As the main author's intention is not to derive a new theoretical model of public sector measurement, there is no need to go in such detail.

The fourth chapter contains results of the DEA and PCA analyses. The text provides a series of interesting and original results which describe the performance of the public sector in the analyzed region. The results are followed by the discussion and policy recommendations. Again, the author here provides several original insights and ideas. This part of the text, however, could benefit from the more structured organization. Author's ideas do not follow either the logic of the results nor the theoretical part. In the end, the reader is left with a bunch of ideas and recommendation without a precise definition of their relative importance.

Other comments and issues could be summarized as follows:

- (i) The most important concern is connected with the level of English. There are lots of typos and misused expressions in the text. Several parts are on the edge of readability and comprehensibility.
- (ii) The style of references in the text is not unified throughout the text. (See e.g. p. 17).

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(iii) The text of the fourth chapter is not always linked to the previous parts. Several terms and abbreviations are not introduced in the “theoretical” part of the thesis.

(iv) I appreciate the section devoted to the data employed in the analysis. There is, however, still some information missing. How was data set cleaned and prepared to guarantee the full comparability?

(v) Author do not provide any comparison with the reality of other regions (e.g. CEE, BRICS countries). The only mention of European reality is on p. 44 (paragraph 2) without any explanation. From the point of view of the university where the thesis is defended, such reflection might be worthy.

(vi) The results stem from the more than 7 years old data set. The analysed period mostly does not catch several political and economic events which took place in the region. I wonder, for instance, whether the relative position of Turkey would change in respect of the reforms which took place there recently.

(vii) More interestingly, the results for Israel (indicating quite poor performance of the public sector), do not go in line with the position of Israel as one of the most developed countries of the Middle East region. Author might discuss that issue in the text.

(viii) One of the motivations – as stated in the introductory section – should be an evaluation of the validity of the revenue curse theory. Although there are several parts of the text dealing with the topic (section 4.3), it might be stressed in the conclusion section.

Questions which might be addressed during the thesis defense:

(1) The analyzed region went through dramatic changes during the last decade (war in Syria, Arab spring). Can you discuss how these changes might affect the results of your analysis?

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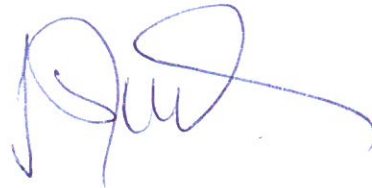
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(2) The Czech Republic is not very rich in natural sources. Is there any lesson we can learn from your thesis results?

Overall, I find the thesis as a nice example of well-done quantitative research with the ability to discuss the results and to derive policy recommendation. The author in his text proves ability and competence in the usage of the DEA method. The results of his quantitative analysis constitute an original perspective of public sector performance measurement.

I recommend the dissertation to be defended in front of the dissertation defense committee and the author to be awarded title Ph.D.



Jiří Špalek

Department of Public Economics, Masaryk University

Brno, August 14th 2018.

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