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REVIEW OF THE DOCTORAL THESIS

SUSTAINABILITY IN MIDDLE-INCOME COUNTRIES

PREPARED BY MR. LAEEQ RAZZAK JANJUA

UNDER THE SUPERVISION OF PROFESSOR JACEK SZOŁTYSEK

The following review was prepared based on the request from WSB University on January 15, 2024. The review is prepared in reference to the requirements specified in act "Prawo o szkolnictwie wyższym i nauce" Dz. U. z 2018 r. poz. 1668 with later changes.

The reported thesis includes 452 pages including references and one annex. The study is based on a wide range of relevant literature consisting of over 760 publications.

The research problem, aims, hypotheses, and research questions

The thesis refers to the essential topic of economic inequality observed in the world for decades which results in division between high-income and middle-income countries. The reasons for such a state of the arts are explained by many theoretical frameworks, but examples of countries that managed to escape the middle-income trap are not many. According to The Economics between 1960 and 2022, only 23 countries left the middle-income group, including Hong Kong, Singapore, South Korea, and Taiwan. Also, Poland is mentioned as a country that successfully got out of the middle-income trap. Thus many countries that develop their economies are still close to the boundary of economic growth.

The stagnant growth rate that middle-income countries face keeps the focus on ways of raising it and improving the standards of living in society. Many authors emphasize also the political issues, keeping the societies in the ill institutional frameworks, not allowing developing their full potential.

Contemporary, economic growth cannot be achieved by omitting sustainable development goals, which have been accepted by 193 countries – members of the United Nations.

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Therefore all countries, including middle-income ones focus not only on their economic and social problems but also on global and local environmental issues.

The research problem defined in the thesis prepared by Laeeq Razzak Janjua combines economic, social, and environmental issues. Furthermore, it aims to uncover the relationships underlying the impact of international finance and international trade on economic growth, poverty alleviation, health outcomes, income inequality, and environmental sustainability.

The detailed aims of the study include an empirical analysis of:

(1) the impact of foreign direct investment, remittance, and official development aid on economic growth, social sustainability, and the environment;

(2) the fact that economic growth driven by international trade and finance can provide additional resources for investment in healthcare, education, and social safety nets, improving social well-being;

(3) the role of international finance, trade, and financial development in the graduation mechanism of middle-income countries thus leaving the middle-income trap.

(4) the impact of governance indicators on sustainable development goals and their effectiveness under the shadow of international financial and trade.

The research aims are completed by three hypotheses. However, the issue arises when the phrase "necessary condition" is put into each hypothesis. The necessary condition has a formal logical basis, and in the context of the thesis, it is very difficult to handle without formal tools application. In the study, the hypotheses are checked using a panel econometric model. Therefore, the statistically significant variable cannot be interpreted as "a necessary condition". For example, such a hypothesis as "H_{oa} Leaving the middle-income trap; the necessary condition requires economic, social and environmental sustainability" cannot be efficiently tested via statistical hypotheses testing procedure due to the nature of this process. We do not reject the null hypothesis unless we find evidence that is apparently against the initial statement. On that basis, we cannot state whether it is a necessary condition or not. It would be useful to reformulate the hypotheses to be fitted to the statistical tools used in the study. Since the hypotheses cannot be confirmed in the way that the Candidate proposes, they can be evaluated as statements related to the thesis topic.

Finally, the research questions were formulated. They are clearer than the hypotheses; therefore the description of the research problem with the specification of the main goal and partial aims, and the research questions fully define the scope of the problems undertaken in the PhD thesis.

Summing up, the research problem is complete and fully distinguished. Aims and research questions entirely define the scope of the study and create the basis for empirical analysis. Therefore, the methodological part of the thesis is properly prepared. The research problem

is in line with the discipline of international relations, being the leading discipline for the Ph.D. procedure of Mr. Laeeq Razzak Janjua.

The structure of the study and content evaluation

The thesis work consists of six chapters. It is completed by the list of references, list of figures, and list of tables. Also, the summary in English and Polish languages are attached.

Chapter 1 plays the role of introduction therefore the methodological issues like aims, hypotheses, and research questions are described. I referred to them in the first part of the review. In this chapter, the methodology and novelty of the study were briefly announced. I will refer to them while discussing the Ph.D. candidate's contribution. The thesis structure was presented at the end of Chapter 1.

In Chapter 2, a theoretical basis for the study has been reported. The theories of the middle-income trap were preceded by the short resume of exogenous and endogenous theories of economic growth. Among the middle-income trap theories, the author discusses the theories that emerged in the 1950s and 60s of the XX century, such as Lewis's dual-sector model, Chenery and Storut's two-gap model, and newer theories introduced in the XXI century, like finance-led growth hypothesis and Aoki's five phases development model for economic growth. What is more, he discusses the theory of intergenerational altruism inspired by XIX-century philosopher August Comte and the concept of sustainable development which is strongly related to the thesis topic. At the end of Chapter 2, the research framework was summarized. The presentation of the theories is concise and clear. In the context of the entire study institutional economics was omitted, while being important due to the evaluation of the impact of governance indicators on economic, environmental, and social sustainability. The scheme of the study presented in Figure 2 defines the steps of the empirical study presented in chapters 4 and 5.

Chapter 3 constitutes a separate part organized as a potential paper proposal. It starts with the introduction of how international finance affects economic growth and goes to the literature review. The literature review consists of the following parts, FDI and economic growth, remittances and economic growth, official development aid and economic growth, financial development and economic growth, trade and economic growth, and human capital and economic growth. These growth factors are indicated in most economic development studies. Then, the author goes to the data presentation. The data covers the period from 2001 to 2021 (annual observations). Descriptive statistics and correlation analysis results are presented. A variety of model specifications is presented. Then, the fixed effects panel model and dynamic panel model are estimated. This chapter also explains the proposed method for empirical analysis and discusses the research findings based on empirical investigations.

The empirical research presented in Chapter 3 aims to highlight the impact of external financial, trade, and financial development on economic growth under the shadow of

governance indicators for 56 middle-income and 21 high-income countries. The findings reveal that developing countries achieve economic growth faster than developed ones. The detailed results indicate differences in the performance among middle-income and high-income countries as well as lower-middle-income and middle-income countries with seaports. The findings also reveal that strong corruption control is the critical determinant of economic growth in all middle–income countries. In contrast, in lower-middle-income countries, economic growth is also induced by government effectiveness. Lastly, in high-income countries, regulatory quality and the rule of law enhance economic growth positively. These results refer to the research aims (1), (3) and (4).

Similarly to the previous one, Chapter 4 is a separate part of the thesis. It highlights whether international finance, trade, and financial development improve environmental sustainability and dim its impact. The literature review shows many examples of empirical analyses of the relationships between economic growth and CO_2 emissions, similarly international finance, financial development, trade, urbanization, governance, and CO_2 emissions. The empirical study investigates growth–finance-environmental sustainability trilemma for middle-income and high-income countries for the period covering the years from 2001 to 2021. For evaluating the impact of economic growth on environmental sustainability, Carbon Emission (in metric tons per capita) is used as an endogenous variable. The summary statistics and correlation coefficient for different panels of countries, i.e. middle-income full sample (also upper-middle-income and lower-middle-income countries) and high-income group are shown. Then the model equations are presented. The panel models were estimated using the fixed effect method and GMM. The conclusion reveals, that economic growth deteriorates the environment by increasing greenhouse gases and international finance inflow. Trade is a significant cause of greenhouse emissions due to political stability in middle-income countries, lower-middle-income countries, and middle-income countries with seaports. Economic factor determines environmental sustainability. External funds inflow through foreign direct investment, official development assistance, and trade impact greenhouse gas emissions in middle-income countries but vary according to different subgroups. In the upper-middle-income group, countries should emphasize efficient and practical use of foreign direct investment, remittance inflow, and official development for the growth process via increasing environmental regulatory standards for improving environmental sustainability. Applicable environmental regulatory standards and environmental compliance policies for consumption and production in upper-middle-income countries could allow upper-middle-income countries to escape the middle-income trap efficiently and effectively. The results correspond to the aims (1), (3), and (4).

Chapter 5 presents the empirical analysis of economic growth on the following social-oriented variables poverty, health, education, and income inequality. The chapter is very long (204 pages in comparison to chapters 3 – 65 and 4 – 69 pages), because, for each of the social variables, the substructure of the chapter is the same, i.e. literature review, research framework, data, model specification and methodology, discussion, and summary. Therefore

the subchapters look like chapters 3 and 4; they are linked by the social context of the analysis. The findings are commented on separately for personal consumption per capita (poverty), infant mortality rate (health), secondary school enrolment (education), and the Gini coefficient (income inequality). In all cases the role of GDP per capita in social conditions improvement is crucial. The question arises as to whether the Gini coefficient – which is quite stable over time – is a good approximation of income inequalities. There is a wide literature on that issue. The results correspond to the aim (2).

In Chapter 6 conclusions based on the empirical investigation according to the formulated research questions are presented. The summary of the results is presented in tables that illustratively show and combine the overall empirical evidence. The policy recommendations are formulated as well. The weakness of that part is such that many recommendations do not come out from the empirical results, obtained in the study. For example, nothing is said about urban development and living in smart cities (it is not the subject of the study) and most of the recommendations related to carbon emission refer to this issue. For example, the following recommendation appears: "Awareness regarding living in Smart cities should be raised; therefore, urbanization becomes beneficial for reducing carbon emission." On the other hand, there is nothing said about the production process which is among the emitters, not only transportation. It seems as if the policy recommendations overestimated the findings considered in the study. Although, many of them remain rational and related to the thesis. It would be appreciated if the Ph.D. Candidate referred to the research aims and hypotheses in the final part of the thesis. Also, directions of further studies would help determine the state of the arts.

The thesis contribution to the international relations discipline

The Ph.D. thesis prepared by Mr. Laeeq Razzak Janjua contributes to the discipline in various aspects:

1. It covers a wide scope of vital issues referring to the factors determining economic, environmental, and social sustainability in middle-income countries.
2. It paints a very broad picture of middle-income countries in comparison to high-income countries. It also explores sub-groups of middle-income countries focusing on their specific characteristics.
3. It identifies economic and financial factors (including international investments, trade, remittance, and aid) determining economic growth, environmental pollution, healthcare, education, and economic inequalities.
4. It identifies institutional aspects that could be helpful in sustainable growth achievement.
5. It provides many useful recommendations that can be useful in creating economic, social, and environmental policies in middle-income countries.

Remarks, comments, and questions

1. In the structure of the thesis and its particular chapters, there are many repetitions. They refer to the aim of the study and research framework which are partially repeated and partially new. Such a construction of a dissertation is misleading to the reader.

2. The structure of the thesis supports an extensive description of the problems, literature review, and interpretation of the results. It was possible to make a more intensive inference and prepare a more concise presentation of the results.

3. The first research question is "How does economic growth via international finance, international trade, and financial development affect environmental and social sustainability in middle-income countries?" My feeling is that it could be alternatively formulated as follows: how do international finance, international trade, and financial development via economic growth affect environmental and social sustainability in middle-income countries? It fits better the scheme presented in Figure 2 (page 45 of the thesis work). Please comment on that during the Ph.D. defense.

4. The general conclusion is such that a country's GDP (or GDPpc) plays a primary role in determining the level of environmental and social sustainability. What is more, GDP is related to international trade and finance. Therefore the crucial incentives that could cause sustainable development come from formal and informal institutions, like legal regulations, social norms, and awareness. If so, I feel undersupply in the lack of institutional economics in the theoretical part of the thesis (chapter 2). Therefore my question is which economic theory (or theories) underlies the empirical studies presented in chapters 3,4 and 5 and why.

5. Concerning the methodology
   - the panel data are treated as stationary without any comment. Typically the growth rate of any variable is stationary – but it may have a different result. On the other hand, exogenous variables (like FDI as a percentage of GDP) can exhibit a unit root. Should the readers of the results be satisfied with the stationarity assumption (not written anywhere in the work)? Please comment on that fact and explain the roots of such an approach.
   - a scheme of panel data modeling is such that the FE estimator is applied and then GMM is going. The Random Effect model which is a natural alternative for FE is not taken into account. The reasons for that should be explained.

6. The data used in many parts of the works shows that data covers the years 2000-2019 and in the others, it is 2001-2021. Which version is the right one?

7. It would be clearer if the references were organized according to the family name of the first author, not according to the first name letter as it is now, for example, the APA style is mostly useful.

8. The symbol GDP_INT that occurs in Chapter 3 is not explained in the thesis.

9. Many typos and other minor mistakes can be noticed in the study. Therefore in further application of the results, a language revision is required.
10. On page 65 - the example of inconsequences that occur in the thesis is as follows: "The GDPPCGR is used as exogenous variable whereas other endogenous variables are FDI which is the foreign direct investment inflow percentage of GDP, REM is the remittance inflow percentage of GDP, ODA is the official development aid percentage of GDP, T is the total trade percentage of GDP, FD is the financial development refer to domestic credit to private sector percentage of GDP". This is an obvious mistake (in Table 2, p. 66 there is a proper definition of the variables), which indicates that revision is necessary.

Overall assessment

The revised thesis provides a complex evaluation of the relationships underlying the impact of international finance and international trade on economic growth, poverty alleviation, health outcomes, income inequality, and environmental sustainability. The testing models, proposed by the Candidate are properly specified and presented in 5 alternative versions to support the results. Research tools such as statistical analysis and econometric panel data models are efficiently used and bring many interesting findings. The thesis is based on a wide theoretical and empirical references, covering over 760 items. Despite the issues I have raised the overall assessment of the thesis is positive.

Conclusion

The Ph. D. thesis *Sustainability in Middle-Income Countries* prepared by Mr. Laeeq Razzak Janjua under the supervision of Professor Jacek Szołtysek defined and solved an original research problem. The author demonstrated general theoretical and methodological knowledge in the scientific discipline of international relations and, thus demonstrated a high ability to conduct scientific research independently. Therefore he satisfied the conditions that are posted to the Ph. D. theses.

In conclusion, I judge that the submitted dissertation meets the requirements for doctoral theses, as required by the act "Prawo o szkolnictwie wyższym i nauce" Dz. U. z 2018 r. poz. 1668 with later changes. I request the Scientific Council of WSB University in Dabrowa Gornicza to admit Mr. Laeeq Razzak Janjua to further proceedings related to the doctoral procedure.

Konkluzja w języku polskim

Praca doktorska Sustainability in Middle-Income Countries przygotowana przez Pana Laeeq Razzak Janjua pod kierunkiem prof. dr hab. Jacka Szołtyska zdefiniowała i rozwiązała oryginalny problem badawczy. Autor wykazał się ogólną wiedzą teoretyczną i metodologiczną

w dyscyplinie naukowej stosunki międzynarodowe, a tym samym wykazał się wysoką umiejętnością samodzielnego prowadzenia badań naukowych. Zatem spełnił warunki stawiane rozprawom doktorskim.

Reasumując, oceniam, że przedłożona rozprawa spełnia wymagania stawiane rozprawom doktorskim, zgodnie z wymogami ustawy "Prawo o szkolnictwie wyższym i nauce" Dz. U. z 2018 r. poz. 1668 z późniejszymi zmianami. Wnoszę do Rady Naukowej Akademii WSB w Dąbrowie Górniczej o dopuszczenie Pana Laeeq Razzak Janjua do dalszego postępowania związanego z procedurą doktorską.