

Fiscal Decentralization and its Effects on Health Sector in Pakistan – Anonymous Review Comments for Authors

The paper attempts to situation Pakistan's health sector within the theoretical context of fiscal decentralization. It claims to assess the relationship between these two using econometric modeling based on provincial data. The authors should be credited for thoroughly examining various aspects of fiscal decentralization as it applies to health, and documenting Pakistan's health sector in detail. Given the dearth of quantitative data, they deserve appreciating for attempting an econometrically driven research project.

However in my view, the paper requires significant work before it can be published. This will require both a thorough rewriting/revision of the paper's write-up, but perhaps also a reexamination of the design of the econometric model (data permitting). *Therefore, I would recommend accepting this paper only after ensuring the following issues are adequately addressed.* Overall, this is a difficult paper to review because while it does provide interesting substantive insights based on econometric modeling (perhaps never done for Pakistan's decentralization before) it is not well-written which as a reviewer I find somewhat frustrating!

To summary the point I made earlier about concerns, here are some issues I have found in reading the paper:

Substantive

1. After reading the paper twice, it is not clear to me what research question is being answered, even though hypotheses are mentioned in Section 4. What frontier is their research pushing? How are the authors making a new contribution to our understanding of fiscal decentralization and health service delivery, either generically or in the specific policy context of Pakistan?
2. Much of the background sections, i.e. Sections 1-3 are excessively detailed and not tightly related to the main hypotheses of the paper. For instance, the relevance of Section 3.2.2 "Healthcare Financing in Pakistan" is not clearly established with much of the rest of the paper. Such sections should be tightly summarized or removed altogether.
3. The econometric model requires some additional work and I feel the discussion of results in somewhat weak. In particular, my concerns are as follows:
 - a. I am not convinced that the choice of dependent variable is most appropriate, i.e. hospital beds per capita are the best variable to capture health outcomes. Are there any studies using the same? If yes, please cite them. Why was this variable selected instead of any alternatives?
 - b. While the lack of quality data on Pakistan's health system is understandable, I am wondering if the authors could run the same or similar regression using districts as the primary unit of analysis as opposed to the three provinces only. Even if the panel data would present incomplete statistics,
 - c. While the authors demonstrate an understanding of the limitations of their econometric design given the lack of observations beyond three, the discussion on statistical tests is somewhat lose and redundant. Even though these are important points to make, economy of words should be maintained in descriptions.
 - d. Overall, I do not think the authors have sufficiently addressed typical concerns for endogeneity. I am not convinced the model successfully isolates impacts of fiscal decentralization on health outcomes. Surely, the whirlwind government changes

and economic growth patterns during the 1990s, or the inflow of foreign assistance during the 2000s would have impacted results. Some appreciation/discussion of such factors would be appropriate.

4. The paper ends rather abruptly following the discussion of econometric results. I suggest re-writing the conclusion to circle back to points made earlier, primarily as they relate to service delivery outcomes and fiscal decentralization in Pakistan.
 - a. Moreover, in discussing model results in Section 4.6, the authors should relate key findings of the model with literature. Does it negate or supplant findings of studies done on other countries? Circling back to the literature would make the discussion more concrete.

General / Stylistic

1. The paper is too lengthy, mainly due to overly wordy descriptions of ideas in Sections 1-3 which can be expressed with economy of words. The tone throughout the paper is tautological hence it should entirely be re-written or significantly revised to make the introduction more succinct (instead of representing scattered thoughts), literature review more analytic (instead of merely summarizing 16 studies) and Pakistan's health sector description more policy relevant. For instance, the second paragraph under literature review starts with a sentence which does not add any value to the discussion and should therefore be removed altogether. The paper is full of such examples. Similarly, I think the rest of this paragraph (especially the part on page 5) which says, "Authors used different econometric methodologies including the simple panel OLS, OLS corrected..." is redundant. Readers of the journal do not require a report on all steps taken to arrive at the model design, but an analytical piece which remains engaged with the main arguments in the paper.
2. Throughout the paper, the authors excessively use subjective phrases which are not suitable for academic writing, neither are they justified through evidence presented in the paper. Some examples include: "health sector remained neglected"; "hint towards the efficiency aspect of resource utilization"; "failed to play a role in the improvement"; "fruitful result" and so on. The problem with these assertions is that they are unsubstantiated and loaded with authors' own views of what results are desirable, to what extent health is neglected etc. which are not as objective as necessary in academic writing. I would urge authors to rephrase such terms, unless of course something is based on hard evidence.
3. There are numerous grammatical errors, including mistakes of tenses and omitted punctuation. These are generally minor and can be corrected. Hence the authors should carefully re-read the paper for editing.
4. Authors should improve the manner in which arguments are connected to one another throughout the various sections of the paper. For instance, how is the inclusion of many independent variables presented in Table 5 justified from studies examined in Section 2?
5. The use of footnotes is not appropriate in many places, e.g. footnotes 5 and 6 on pages 6. They should be used for clarifying ideas presented in the text, not as a substitute for in-text citations as is the case in certain places throughout the paper. Similarly, every time an abbreviation is introduced for the first time, the entire name should be spelled out instead of using footnotes, e.g. foot note 11 on page 12 for 'DTP'.
6. For in-text citations, authors are advised to avoid abbreviations such as GoP (1993) or MTDF (2005) etc. Also, in-text citations should be done consistently in one style.

7. While discussing the empirical results, authors should bring up the relevant tables into the main text of the paper so it is easier for readers to follow their interpretations. In the description, variable names such as `ftrans_1` should be replaced with more descriptive names which would make the discussion easier to follow.