

# Reviews of ECONJOURNAL-D-23-00001R1

PREFERENCES, INSTITUTIONS AND POLICY MAKERS: THE CASE OF THE NEW INSTITUTIONALIZATION OF SCIENCE, TECHNOLOGY AND INNOVATION GOVERNANCE IN COLOMBIA  
PREFERENCES, INSTITUTIONS AND POLICY MAKERS: THE CASE OF THE NEW INSTITUTIONALIZATION OF SCIENCE, TECHNOLOGY AND INNOVATION GOVERNANCE IN COLOMBIA

## Round 1

### Reviewer 1

The article is well written. The methodology employed was good and the analysis is on point. The explanation of the results was good and reflects the realities. It meets the standard of this journal.

I recommend the publication of the manuscript with minor corrections.

However, there are some major changes the authors have to take care of.

CORRECTION:

Page four

1. In the third paragraph of the introduction, provide a reference for this statement "In particular, transparency, independence and rules that allow research and development investments in the private sector should be promoted as key elements in creating new knowledge, technologies and innovation offering an adequate rate of return and improvements in productivity and competitiveness."
2. Similarly, this sentence "Institutions are the focus because understanding institutions implies understanding the complex causation and combinations of factors that allow for the promotion of appropriate STI policy and instruments, a topic receiving limited attention from previous studies, especially in developing countries and focused on transitions achieved through the creation of MSTI, which concurs with UNCTAD (2019) that considers STI policy strategy, instruments, processes and governance require policy harmonization and strategic coherence between STI and many related improvement policy issues. However, it is necessary a policy experimentation with new type of STI policies to guarantee aligns with current policies." in paragraph 7 of the introduction needs to be rewritten. The sentence is too long and the meaning is lost.
3. The last paragraph of the introduction needs to be written again. Try to differentiate between the types of literature reviews mentioned there. If one is theoretical then the other should be empirical.
4. Per the last paragraph of your introduction, the literature review section should be separated as such. Don't mix them up. It is not clear which one is theoretical, and which one is empirical.
5. The second sentence of the first paragraph of the literature review is categorical provide a reference for it "In this way, they create certain

incentives or motivate actions for agents, who adapt or change their behaviour accordingly to fulfil objectives, achieve improvements in the system and generate expected outcomes; these actions support STI production and the diffusion of new knowledge."

6. The first two sentences of the 3rd paragraph in the literature review section sound more AI done human. The chronology of wording and paraphrasing of keywords makes it so obvious. Please re-write those sentences again. If possible provide a reference because it is a definition "The term institution is recursively used to designate those organisms that pre-eminently perform a function in the public interest, especially educational, cultural or charitable functions. The institutional concept is most often applied to those established social orders that represent recognized organizations in matters of social interaction and cooperation."

7. Provide references for this in the 4th paragraph in the literature review "From the institutional perspective, the presence of incomplete information has important consequences for the potential to coordinate the different decisions that must be made by policymakers. Those agents that at any given time are influenced by uncertainty, risk, or a lack of incentives for efficiently allocating resources will tend to generate an economic environment characterized either by a lack of cooperation or by inefficient coordination between the different decisions taken by the representative agent. The literature referring to the institutions argues that the problem of incomplete information can be mitigated if the policymaker has sufficient information and knows the rules established for the operation of the new institutions."

8. Provide references for this in the 6th paragraph of the literature review also provide at least the least of the studies that demonstrated that institutions are fundamental to economic outcomes and development. " Different studies have demonstrated that institutions are fundamental to economic outcomes and development, particularly for improving investment, and suggest that institutions play a crucial role in the preferences and expectations of society. In the case of STI, institutions allow for the management of market failures and can help generate a knowledge-based society, which itself is a key element in promoting higher specialization in the productive sector and human capital. In the process, the analysis of institutions and their relationship with different interest groups allows for the design of effective policies." What do you mean by economic outcomes? When you are paraphrasing make sure the substitute words are not ambiguous and fit the sentence perfectly.

9. This sentence is too convoluted separate it into two sentences. This is the 12th paragraph of the literature review. " According to studies by Jang (2000), the creation of MSTIs worldwide has been motivated by different factors, such as the increase in global organizations interested in STI-based development, which has positively affected investments and the founding of enterprises through MSTIs; the positive experience of other countries with MSTIs, which has

accelerating the establishment of such ministries around the world; the greater likelihood that developed countries that have become knowledge societies adopt MSTIs; the ability of countries with an interest in the military industry and its development to use MSTIs to more effectively promote and mobilize STI resources and achieve higher competitiveness through the sale of arms and military technology; and the potential for MSTIs to generate positive effects on functional and resource mobilization and decrease institutional effects over time."

10. There are too many convoluted sentences break them into two or three sentences for easy comprehension.

11. Additionally, you forgot certain aspect of institutions in your literature. That is the information institutions and their role in shaping the new MSTIs. I think it will add a really good value to your work.

12. A minor observation, please use a grammar checker to check your punctuations and some little grammar issues.

Transfer AuthorizationResponse

## Reviewer 2

This study employs a combination of qualitative and quantitative analysis to elucidate preferences concerning new Science, Technology, and Innovation (STI) institutions and the role of policymakers in Colombia. Simulation results reveal that among the selected agents, the STI policy preferences of managing scientists lead to economic outcomes closest to the optimal level, whereas those of politicians result in suboptimal, and occasionally negative, outcomes. These findings carry significant implications for public policy, highlighting the critical role of selecting appropriate policymakers to ensure desirable outcomes in the application, implementation, and execution of STI policies. The study underscores the importance of strengthening STI policy frameworks and emphasizes the government's pivotal role in transitioning Colombia from a technology receiver to a knowledge, technology, and innovation generator, aligned with the needs of its population and natural resource endowments.

However

the abstract is not clear. clearly mention the notations. comparison method need for the proposed method validation.updated recent references.