

# Reviews of ECONJOURNAL-D-24-00131R

The research on the impact of regional trade network relationships on value chain resilience in China's service industry

## Round 1

### Reviewer 1

Overall, the paper is well-written and it has a relevant topic: how regional trade networks have developed in Europe, North America and China (Belt & Road) with a special focus on China's service industry.

I am not the biggest expert in trade economics and the statistics applied in the paper, hence my review may be limited in these regards.

Nevertheless, I see a strong need to improve the paper especially with regard to coherence/structure, methodology description and a number of formal issues:

Abstract: The Abstract is not very precise regarding the actual methodology applied in the paper.

Introduction: The research goal/aim/question towards the end of the section is too vague ("this article explores": What exactly, how?

Literature: add literature on the service industry. How is it defined? How is it represented in the existing literature on (regional/Global/national) trade networks?

Structure / Methodology: I see room for considerable improvement here.

Currently, Section 3 is a mix-up of fundamentals/definitions (3.1) and empirical observations taken from secondary data. An overall methodology description is completely missing and should immediately follow the literature section.

Make a clear difference between literature/fundamentals and your set of approach(es), e.g. descriptive analysis based on secondary data to find out this and empirical approach to find out that. Also, the hypotheses are only presented quite late in the paper, and they are neither mentioned in the introduction nor in the conclusion. Maybe a nice overview figure would be great, showing the components of your approach (e.g. a flow chart).

Conclusions: These should be more precise and detailed, and they should better reflect the objectives and also consider the hypotheses. Please include a quick wrap-up of the contribution of your work.

Literature: Mainly Chinese literature from the last 10 or so years. What about more fundamental literature on the economics of trade networks as well?

Referencing: Some statements are not backed by sources, or the sources are not provided according to the journal's requirements. E.g.:

Page 1: GVC Development report: add source

Page 2: 2/3 of global trade / "giving rise to more intraregional trade..." / ""regional trade networks relationships have gradually become a central influence..." -> add proofs!

Page 1-4: no consistent referencing here (Harvard), while from page 4 onwards the brackets style [x] is used. Please make us of uniform referencing throughout the paper.

Language: I think a final English check will be needed, e.g. shortened, more colloquial forms like "it's" are used here and there, and there are some sentences without added value that could and should be deleted, like "But while it has had positive effects, it has had some negative ones" on page 1, and so on. At the top of page 2, there is an example of a far too long sentence.

## Reviewer 2

### Overview

The paper aims to analyze the value chain resilience of China's service industry depending on its trade network relationships. For this end, it uses measurements of network density, connectedness, and centrality to assess the quality of China's service industry trading relationships with three regional trade networks: North America, the EU, and the "Belt and Road Initiative".

The authors argue that an increase in the value chain resilience in one of the regional networks translates into an increase in the overall global values chain resilience of China's service industry. By theoretical considerations, they derive a relation between three types of centrality ("degree centrality", "betweenness centrality", "closeness centrality") and value chain resilience. At the heart of the paper is an econometric model that tests the hypotheses using data from the years 2007 to 2021.

### Critical Discussion

- While the theoretical considerations and the interpretation of estimation results seem convincingly at a first glance, they lack to some degree completeness:
- Clarifications are missing of how the different dimensions of centrality are measured and how these measurements concretely relate to the theoretical considerations.
- The negative effects of networks relationships on value chain resilience should be discussed more broadly, and in more detail, as well as the relationship between global, regional and domestic value chains.
- The benchmark econometric model lacks substantial rationales and considerations:
- The set of control variables is not motivated.
- The Industry Fixed Effects are not clarified: Are there any subsectors of the service industry considered?
- There is no discussion about possible other measures of value chain resilience besides stability and security, their relationships, and the possible effects on

the "Benchmark regression results".

- In the benchmark regression, the low  $R^2$  values for the security dimension of value chain resilience are not discussed.

- It is not discussed why the equation of the benchmark model does not comprise degree centrality, betweenness centrality, and closeness centrality from all three regional trade networks at once. If the explained variable measures the global, i.e. the overall" value chain resilience, why is the regression performed for each regional trade network individually?

- According to the authors, the paper wants to achieve a "breakthrough" with respect to quantitatively analyzing value chain resilience on the "mesoscopic level" by considering the service industry (p. 4). Nevertheless, the study lacks a comparative analysis of its results with the results of the existing literature concerning micro and macro perspectives.

## Conclusion

For being compelling and augmenting research in the field of value chain resilience, the authors should consider the critical points mentioned above.

## Reviewer 3

The work consists of several formatting errors. For example, chapters 1 and 2 are justified, the remaining chapters are not. The line spacing in the chapters is also different and in many quotations there is no hyphen after the name or before the year. Chapters 3.1.1 to 3.1.4 are too short with only one paragraph and therefore without any significant content. The figures in Figures 1 and 2 are difficult to read or recognise as they are too small. Chapters 3.3 and 3.4 are completely without sources. It is not clear how the statements came about. There is a lack of sources. The derivation of the indicators in chapter 4.1 is not comprehensible. Do they originate from other scientific works or were they developed by the author? Sources are also missing here. The calculation of the values in Table 2 is not comprehensible. Which formula or which model was used? Derivation of the hypotheses in chapter 5 unclear. Are these derived from theory, as the title of the chapter suggests? If so, there is a lack of references throughout Chapter 5 to the theories from which the hypotheses are derived. Pointing out further research opportunities or a research gap for future work would be helpful.

## Round 2

### Reviewer 1

I would like to thank the authors for dealing with my comments in a transparent way, and for considerably improving the paper. The amendments highlighted in yellow provide a good overview of all changes, which seem sound. I like the methodology figure, and the structure has been improved considerably. I assume publishers' back office will deal with any language-related issues, if any.

### Reviewer 2

The authors' revision delivers substantial clarifications and enhancements in content. They carefully consider the reviewers' comments. As a consequence, the revised article is much more compelling and valuable for research.

### Reviewer 3

The article has been revised. The comments from the first review have been implemented and highlighted. The article is proposed for publication.